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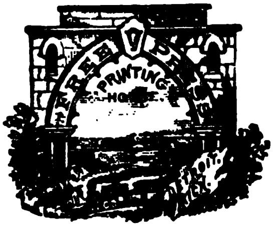
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VOL. I. JANUARY, 1878. No. 1.

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The sharp edge of the colt's hoof had cut through the soft parts covering the skull for nearly two inches along the superciliary ridge, and crushed the os frontis into several fragments, driving them back upon and into the brain substance.

Since these fragments appeared to be so firm that they would require considerable force to remove them, and as the collapse of the patient was so complete, the doctor temporarily closed the wound, and ordered a dressing of tepid water.

The next day, April 10th, the patient had rallied during the night, had recovered almost entirely from the concussion; con-

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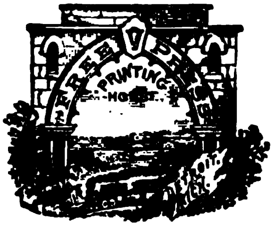
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Since these fragments appeared to be so firm that they would require considerable force to remove them, and as the collapse of the patient was so complete, the doctor temporarily closed the wound, and ordered a dressing of tepid water.

The next day, April 10th, the patient had rallied during the night, had recovered almost entirely from the concussion; consciousness and intellection good; pulse eighty, of good volume. Patient complained of some pain in the forehead and right eye. I saw the patient, in consultation with Dr. Hill, at noon of the same day. Skin was then hot and dry, and the pain in head had greatly increased, and there were signs of compression. Two or three rough-edged pieces of the skull were removed, and a third, of considerable size, was elevated. One fragment removed was a portion of the superciliary ridge and a portion of the roof of the orbital cavity.

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Shreds of torn membrane were removed, with nearly a half an ounce of broken down brain substance. The edges of the wound were approximated with silver sutures, and the wound dressed with diluted tincture of arnica.

Dr. Hill's notes show that the patient did well, with no untoward symptom, until the 15th, when, through a portion of the wound left open for drainage, a small rounded tumor was noticed. Pulse one hundred, and less full. Appetite still good.

April 16th, patient was cheerful—even playful; appetite good; pulse one hundred. "The tumor in the wound is increasing." Lips of the wound were now approximated by adhesive strips, and head dressed with a compress and roller. In spite of this treatment by compression, the tumor continued to grow, until it protruded above the surface, bleeding when handled.

On the 22d I saw the case again, in consultation. A fungus looking tumor protruded from the wound in the scalp, about the size of half a hen's egg, bleeding when handled, and distinctly pulsating with the brain. The character of the tumor was unmistakable—a fungus cerebri.

To be sure that there was no superficial abscess at the base of the tumor, I punctured it with a small trocar, with negative results, except a little blood.

I directed that a folded cloth, saturated in a solution of the permanganate of potash, ten grains to the ounce, should be applied to the tumor, and then a graduated compress, the whole to be secured by a roller bandage, which was to be tightened just as the patient could bear it. A little too great pressure by the bandage at once produced symptoms of brain compression.

On the 25th, the tumor having increased somewhat, I directed that the solution should be increased in strength to twenty grains to the ounce, and same treatment to be continued, together with a more supporting and nourishing diet.

On the 26th the doctor reported "the tumor begins to lessen slowly."

On the 30th the patient was reported as "remarkably bright; says he feels as well as ever; sits up, and has his playthings and little books; mental faculties entirely perfect; tumor considerably less than at last visit; can easily be compressed within the skull."

The edges of the wound had now become cicatrized and adherent to the puncture at the edge of the fracture, and could not be approximated.

On the 4th of May I dissected up the edges of the wound, and revivified them, and brought them together with silver sutures and adhesive strips, and applied a compress with a roller bandage. The case did well, and on the 16th Dr. Hill discharged the patient.

On the 22d the boy had a severe convulsion, preceded the day before by rigors and loss of appetite.

As soon as the convulsion passed off the patient returned to consciousness, but appeared somewhat dull and stupid—would answer questions, however, correctly—and said he had pain in the back of the head and the spine. His skin was hot and dry, pulse frequent, tongue heavily coated, and, apparently, the tumor was crowding up under the now closed integument.

For the next ten days symptoms continued much the same, with slight remissions of fever in the mornings, and an apparent increase in the concealed tumor. The patient now took mild mercurial alteratives, followed by saline cathartics, with quinine during the remissions, and lead lotions to the front part of the head.

On or about the 24th, a discharge of a large quantity of thin, inodorous, straw-colored purulent matter took place, through a spontaneous opening in the cicatrix, just above the right eye. The apparent tumor, from that time, grew rapidly less, the discharge lessening every day, until it soon ceased entirely, and the cicatrix was again perfectly closed.

I have known this patient ever since that time, and can testify that, in the estimation of his parents and all who know him, his mind and his disposition have not suffered at all from the accident and its consequences, related above.

CASE II.—*Wound of the Left Anterior Lobe of the Cerebrum of a Little Girl, by a Pistol Ball, followed by Fungus of the Brain. Recovery.*—In November, 1875, while on a visit to New York, I went through the surgical wards of Bellevue hospital, which were then in charge of House Surgeon Dr. H. M. Silver, with Dr. James R. Wood the visiting surgeon. Dr. Wood, in passing the bed on which this poor little girl lay, spoke a cheerful word to her, and then said to me in an undertone: "Poor thing, she is going to die; we have done all we can for her." I asked to see the child, when I received the brief history given above, and also the statement that all the usual means had been resorted to to reduce the fungus and secure healthy cicatrization, but to no purpose, and a tumor the size of a robin's egg then protruded from the hole in the skull.

I then mentioned to Dr. Wood my treatment of Case No. 1, and its result, and he at once ordered the application of solution of permanganate of potash, twenty grains to the ounce of water, with a graduated compress and a roller bandage.

I have since learned, through Dr. Silver, that the treatment was entirely successful, and that the child recovered without a bad symptom.

Through Dr. Silver, I have requested that I might be permitted to quote from the records of the hospital the notes of this case for this paper; but Dr. Wood has declined the permission, on the ground that the "*By-laws of the institution forbid it.*"

Analysis of Fifty-one Cases of Hernia Cerebri, reported in the Medical and Surgical History of the Rebellion.—Of these fifty-one cases, ten were not properly cases of fungus, or so-called "hernia of the brain," but appear to have rather been cases of the primary protrusion of the injured brain substance.

Of these ten cases two survived. Eight perished.

Of the forty-one cases of true hernia cerebri, the fungus supervened in twenty-three cases upon the primary injury which tore the dura mater and broke up more or less of the substance of the brain; while in eighteen cases the appearance of the fungus followed an operation made necessary by the primary injury, and which either tore the dura mater and injured the brain substance, or took away fragments of bone which covered and compressed the portion of the injured brain.

The number of days after the primary injury, or after the uncovering of the primary injury at which the fungus appeared, is given in the following table:

1-5 Days.	5-10 Days.	10-15 Days.	15-20 Days	20-30 Days.	60 Days.	Seven months.
19	5	10	1	4	1	1

In the forty-four reported fatal cases, death occurred as follows:

1-5 Days.	5-10 Days.	10-20 Days.	20-30 Days.	30-40 Days.	40 Days to two Months or over.
7	8	8	8	5	8

In these fifty-one cases, the seat of the primary injury, when stated, was:

In left parietal region............	1 recovered;	5 fatal.
In left fronto-parietal region		2 "
In left temporal "		2 "
In right parietal "	1 "	10 "
In right temporal "		1 "
In occipital "	1 "	3 "
In vertex		1 "
In frontal "	4 "	11 "
	—	—
	7 "	35 "
Not stated.....................		9

Although these numbers are too small on which safely to base any conclusions as to the comparative danger of wounds in the various regions named, yet, so far as they go, they tend to show that wounds in the frontal region are the least dangerous; and those in the occipital region stand next.

Of these cases, the fungus is said to have been accompanied by positive disturbance of the mental faculties in sixteen, two of which recovered; by no marked disturbance of the mental faculties in seven, one of which recovered; by paralysis in nine, one of which recovered.

The appearance of the hernia is said to have been preceded by suppuration of the wound in the brain with free discharge in ten cases; and to have been accompanied or followed by abscess of the brain, as shown by autopsy, in eleven cases.

Treatment in most of the cases appears to have been simple water dressings to the wound of the head.

Moderate compression to the fungus is mentioned as having been applied in four fatal cases, and in two cases which recovered.

The fungus was shaved off in four fatal cases, and in three which recovered. In one fatal and one recovered case, the fungus is mentioned as having "disappeared by suppuration or sloughing."

Lime water is mentioned as having been applied to the fungus in one fatal case.

Creasote and potassa permanganate	1* fatal case.
Nitrate of silver	1 " "
Sulphate of iron	1 recovered case.

I know very well that "one swallow does not make the summer," and that reasoning in therapeutics from too few cases is not only unreliable, but actually dangerous, as misleading.

But in such cases as mentioned above, in which so large a percentage of the cases has heretofore proved fatal, and in which there is no settled, recognized plan of treatment, any course of treatment under which two consecutive cases have recovered, ought certainly to be reported.

From numerous recorded facts alone can principles be deduced and established.

KALAMAZOO, Mich., Nov. 10, 1877.

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*In this case the application appears to have been made only to the wound in the head, as a whole, but not directly to the fungus, and with pressure.

Civil Malpractice.

BY STILES KENNEDY, M. D., ST. LOUIS SPRINGS, MICH.

It may be a compliment to the medical profession to say that the great mass of its members have a very limited knowledge of the relations they hold to the civil law about them in the daily practice of their profession. Lament it as we must, it is nevertheless true, that for years the tendency has been, in this country, to study that which holds out signs of the earliest remuneration, or fills the more urgent need; and if there has been no need of a knowledge of medical jurisprudence, it is fair to assume that the professional conduct at large has been above censure. The study of civil malpractice is therefore put off from time to time, until some day lightning strikes in the shape of a *capias ad respondendum!* Then what a flurry. A lawyer is hunted up, and there is just one chance in fifty that he can tell whether the femurs are in the limbs, loins or larynx. The attorney has, American-like, postponed the serious study of anatomy and physiology, and perhaps even the rudiments of chemistry, until he could make *it pay.* The physician looks around amongst his professional brethren, knowing that his practice would have been their practice, his performance would have been theirs, and that he may expect their assistance. Unfortunately, their ability to render assistance is hindered and crippled by their own want of knowledge of how the matter presented looks except from the medical point of view. And it boots little how doctors may look upon the questions of duty to patients and the public; when a case comes to be judicially investigated, it is viewed from the airy summit of the *Law.*

The physicians of nearly every community are above the plane of mediocrity in point of intelligence and general information. They have a fair semblance of familiarity with statutory law. They form indeed a respectable and influential portion of our lawmakers, and if they would interest themselves in medical jurisprudence, some important modifications in our present laws might be made, begetting justice, celerity and uniformity in the trial of such cases. For instance, the statutes should provide that the plaintiff, in bringing suits for alleged malpractice, should give security for payment of defendant's costs, in case the allegations are not proved. At present the physician is put to a great deal of trouble and expense, loss of time and sacrifice of money. He has to give bonds to the sheriff, and then a bail bond to the court for his appearance and trial. He must have the very best lawyers he can procure, and spend some time in getting them posted on the medical side of the case. And so on through a thousand and one things that no one thinks of until they get in this particular "boat."

The plaintiff, on the other hand, is often, very often, at no trouble. He simply tells a lawyer to get out the "papers"—a trifling cost—adjourn the case from time to time, as he can, and then finally withdraw it. If the plaintiff was liable for costs thus made, these suits would not figure so often on our court calendars.

The laws or rules of evidence should be essentially modified. While it would be foolish to place a medical library, with marked pages, in a jury room, the defendant should have the privilege of reading extensively from standard medical works, and if such works, or any of them, bear out his practice in the case on trial, it should be deemed a complete defense.

Expert testimony is frequently difficult and expensive to obtain; it is often unsatisfactory, and my experience is, that it is not more so to any one than to the expert himself. The "hypothetical case," with which he deals so largely, is the biggest humbug in medical jurisprudence. I fully agree with Dr. McClelland,* in his recent work, when he says: "No hypothetical case can be possibly stated whereby a surgeon can determine, positively, what treatment should have been adopted in a given case."

The right of *personal inspection* should be allowed the defendant, under certain restrictions, of course. That is, the court should have power to appoint a commission of competent physicians to examine the person alleged to have been the victim of malpractice, and determine, as nearly as possible, how much, if any, injury really exists, its character, etc. This point was thoroughly discussed, and the opinion of the court clearly elucidates the importance of this principle, in the case against Dr. Sayre, of New York.*

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*Civil Malpractice; a Treatise on Surgical Jurisprudence. By Milo McClelland M. D. Hurd & Houghton, New York.

The law makes no distinction between the "schools" of medicine. Legitimate medicine, with the prestige and improvements of centuries, is no more before the law than the new pathy of yesterday. The diploma of the school is evidence of the possession of skill, and no matter how egregious the blunder the possessor may make, if he can show that his school practices it, no damages can be laid to him; while the practitioner of the more intelligent school is mulcted for the same offense. If the practitioner possess knowledge, but not a diploma, he must show it through a cloud of prejudiced professional witnesses. If he possess neither diploma nor learning—he may have the court, which just then is far better. So late as 1807, Lord Ellenborough, C. J., used the following remarkable language in regard to one Williamson, who was arraigned for manslaughter. He had only slaughtered a woman by attempting to drag out her uterus, two days after delivery, mistaking it for the placenta: "It appears that he had delivered many women, at different times, and from this he must have had some degree of skill. It would seem that, having placed himself in a dangerous situation, he became shocked and confounded. I think that he could not possibly have committed such a mistake in the exercise of his unclouded faculties; and I own that it appears to me that, if you find the prisoner guilty of manslaughter, it will tend to encompass a most important and anxious profession with such dangers as would deter reflecting men from entering." Of course, verdict, not guilty. Williamson was not a regularly educated accoucheur, but a sort of man-midwife. If Lord Ellenborough had had before him one of the "reflecting men" "of a most important profession," Old Bailey prison would have had one new prisoner.

The law holds the physician liable, if any damage result, for administering chloroform by inhalation, unless he has made a physical examination of the patient to determine the absence of disease. Hundreds of physicians all over the country place themselves in a position to be held responsible for this every day. Yet it is very seldom that in *post-mortem* examinations of deaths from chloroform, any cause of death is found that would have been revealed by an *ante-mortem* examination.

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* Walsh vs. Sayre. Alleged Malpractice Suit. George H. Shaw & Co., Publishers. New York. 1870.

One may say these things are all right. They are logical and in accordance with the principles of law and the highest standards of law, and all that, but, at the same time, he feels that beneath all there is an undercurrent of injustice toward legitimate medicine.

These are only a few of many vexatious things that any thoughtful reader will cross in the reading of any work on medical jurisprudence. Indeed, these points which I have merely mentioned I met in an hour's reading of Dr. McClelland's very clever book, this afternoon.

The truth is, that the State medical societies, through proper committees, should give this whole question a thorough overhauling, and put themselves on record in regard to many questions, so that there might be more uniformity of opinion among medical men before courts of law. For instance, the question of making examination before giving chloroform; while on other questions a proper representation to the law-makers would be sufficient. And the subject of medical jurisprudence should receive more attention in our colleges, especially since three courses are given now, instead of two. It is a subject that deserves competent, thorough and systematic teaching, not thrown off in chips and shreds, which the student is expected to put together as he would a Chinese puzzle, with an important and unknown portion of the trinket lost.

I have been summoned occasionally as an expert, and even a closer connection than this has obtained with civil malpractice suits; and I purpose, in a short series of papers, to discuss some points in medical jurisprudence that either have not been touched upon at all by physicians, or have been left in rather an unsatisfactory condition. Most of these questions relate to the surgical phase of the subject. I shall cite some actual cases in the lower courts, and give such testimony as is necessary to a thorough understanding of the cases, in all cases being guided by the record of the court. Of course these proceedings are not authoritative in law, but they answer our purpose doubly. They give us a glance of a lower court, and in these cases more points are presented for discussion than in any published, that I have been able to find. Before entering upon this interesting topic, however, let us try and find a local habitation for the physician in the law, so that when I refer to him, as I frequently shall, we will know where to find him, as near as may be. I use the terms "physician" and "medicine" as including specialists and specialties, because nearly all of what would be special practice is done by the ordinary general practitioner of medicine, the physician. It is only in our larger cities that we have surgeons, obstetricians, oculists, etc., distinctively as such in practice.

When there is no contract between physician and patient, the law implies one to the effect that the physician is to bestow "*ordinary*" or "*reasonable care and skill,*" or "*due diligence and skill,*" and these requisites are essentially modified by circumstances. The courts have differed widely in their estimates of what constitutes ordinary care, reasonable care, and the term due diligence. I shall not attempt a review of these opinions, but will follow the line of argument laid down by Wharton as comprehending the whole matter. The general law: "A person undertaking to perform a special duty is bound to enter upon and discharge it with the diligence belonging to a *diligens, bonus, studiosus paterfamilias.*"[*]

The Roman *paterfamilias* was a man of high responsibilities, the chief of a tribe, invested with almost unlimited authority over his children, no matter of what age, until they were emancipated; wielding, therefore, possessions and prerogatives the due management of which required peculiar sagacity, business tact, keenness of apprehension and promptness in executive action. Lebrun, in his essay,[†] reminds us, in construing this term, that the Roman *paterfamilias* was eminently the man of affairs; that the *bonus paterfamilias* was a good man of affairs, and hence, that the term

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[*] Negligence, Law of. Francis Wharton, LL. D. Page 28.

[†] Essai sur la preddion de fautes, p. 2

bonus et diligens paterfamilias is convertible with "conscientious and diligent business man," or "conscientious and diligent expert." The diligence, therefore, of a *diligens, bonus, studiosus paterfamilias* is not to be measured by what we might call the diligence of an ordinary English family man. It is, to adopt our own phraseology, the diligence shown by a good and trustworthy business man when dealing with his particular duties. And the diligence that such a man shows in the discharge of his particular duties is the diligence which a business man is required to show when he undertakes, *as a business*, to attend to the affairs of others.

When a person is called upon to perform a particular duty, with the business, performance or management of which he does not pretend to the knowledge of, then the law only requires that diligence which all persons of ordinary common sense can bestow.

With this understanding of the diligence or "care" exacted by the law, it is the proper place to inquire into the correlative negligence. The degree of negligence imputed corresponds with the degree of diligence exacted. If the law in one case impose a degree of diligence higher than it impose in another case, then, in the first case, liability is attached to a lesser grade of negligence than in the second. That such a distinction exists between the expert (business man) and non-expert (not a business man) is a necessity both of business and jurisprudence. The Roman law adopts this distinction under the terms *culpa data* and *culpa levis.* Culpa necessarily assumes a danger that can be averted by diligence and attention. It is of different grades, and these shadow into one another in spite of the following scheme:

Dolus—Intentional fault.

Culpa data—Gross negligence; negligence of non-expert; one who exhibits ignorance of that which everybody knows. For instance, an ordinary unprofessional nurse called in to assist a person taken suddenly sick. Such nurse, we must agree, is not liable for special negligence—*i. e.*, the lack of diligence and skill belonging to a professed ph[illegible]—but is liable for gross negligence—*i. e.*, the lack [illegible] and skill belonging to or[illegible] unprofessional [illegible] common sense, such as omitting to watch, or to call a substitute, if obliged to suspend watching, in cases in which watching is required.

Culpa levis—Negligence of an expert; special negligence; the negligence of a good business man in his specialty. For instance, in the case cited above the physician is liable for *culpa levis* if he either undertake the case without the ordinary qualifications of a physician under such circumstances, or manage it without the ordinary skill of such physician. If the physician fail to do what non-experts or persons of common sense would do to relieve the sick or suffering, he is liable in addition for *culpa data*.

Culpa levissima — Infinitesimal negligence, or the omission to ward off every possible casualty. This distinct grade of *culpa* has been rejected practically by the Anglo-American courts.

Accidens.

If we apply these general principles to the physician, we can only repeat that he is to bestow the diligence of an expert—an experienced business man in the particular business of a physician —of one who has the education, practice and qualifications of a good physician.

Now we are brought face to face with another difficulty. The expert physician by his professional qualifications knows the amount of diligence required only as estimated by the integral parts and sum total of his own individual qualification. He may possess knowledge and experience sufficient to make him an expert in the eyes of the law; and yet is he to be liable to the law after bestowing all the diligence his knowledge as an expert told him was necessary, because other experts of better education, greater facilities for learning, and larger experience, declare the amount of diligence bestowed was not adequate to the case? At what point is the standard of skill to be fixed? The highest degree is not required; what is the lowest degree that can be got along with on the part of the physician?

On this important question the courts hold different opinions. Some courts have held that an "average" skill must be estimated.

This it is impossible to do, and if it was possible, the rule would be too rigid, while the standard would be too low. Other courts hold that the "skill" of the more "thoroughly educated" class of physicians should be the standard. Others, again, place it at the point of "ordinary skill of the ordinary physician, due regard being taken to the advance of medical science." My own opinion is that the law should require of the physician that amount of skill only which is possessed by physicians of his immediate locality. Each physician cannot be "the best doctor in the neighborhood," but if either one possess and apply, in any particular case, that amount of skill which physicians of that particular locality possess and apply in similar cases, under the same circumstances, then he is a *good* physician, and the law should not hold him liable. We should be very careful how we take into consideration the "advance of medical science." There is as much mirage in medicine as in physics. We catch an advanced idea, and are delighted; it is laid in the golden box, fed on the best thoughts, proclamation made to the world, and just as we are ready to receive the encore, the breath of "inexorable logic" burns it to "ashes." Any advance medical science makes should be appreciated by the courts and law-makers, and by the great masses of the people, for it is made in their behalf, and in bold defiance of the law! The law requires the physician to have authority for his acts in the practice of his "school," and every advance he makes is at his own peril.

To return: The paramount importance of time and place, in estimating the amount of skill of the physician, seems to have been in the mind of Chief Justice Wood, in the case against Dr. Sergeant,* when he says: "The fact essential to be proved was, that he was as skillful as surgeons generally in the section of country in which he practiced, or, in other language, that his skill was equal to the ordinary skill of the members of the profession in practice." In practice where? Evidently, "in the section of country where he (Dr. Sergeant) practiced."

Judge Cole, of Iowa, in the case of Smothers vs. Hanks, in his opinion reversing the judgment of the court below, says: "The error consists in requiring the measure of skill and diligence ordinarily exercised by *thoroughly educated* surgeons, whereas the true measure is that ordinarily exercised in the professions by the members thereof as a body." The judge, after discussing the "error," tries to determine this "ordinary skill." He speaks of regard for improvements, etc., and then says: "It is also doubtless true that the standard of ordinary skill may vary even in the same State, according to the greater or less opportunities afforded by the locality for observation and practice, from which alone the highest degree of skill can be acquired."

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* Leighton vs. Sergeant, 11 Foster N. H., 120. McClelland, 219.

Wharton holds that the physician must exhibit the diligence of good physicians of his "school," and that "he must familiarize himself with the literature of his profession, but this must be according to the opportunities of his place." Therefore the "opportunities of his place" controls the amount and character of his knowledge, as well as the amount and character of the knowledge of the physicians around him, and it must necessarily and inseparably control the amount of diligence they bestow in any case.

While this much is expected of the physician, the law requires the co-operation of the patient in every particular essential to the successful termination of the case. If the patient *will* not, or from any cause *can* not, obey instructions, and assist in carrying out a course of treatment deemed necessary by the physician, he is guilty of contributory negligence, and cannot recover damages. Or if, without specific instructions from the physician on a particular point, he omit to do those things in his own behalf which all persons of common sense would do, or if he does those things which, under similar circumstances, ordinary persons of common sense would not do, he can hold no one liable, for it is his own wrong. The laws of the different States differ very much as to the responsibility of the plaintiff in malpractice suits. I gather from Michigan reports the following:

"The question of diligence or negligence always depends upon and partakes of the surrounding circumstances peculiar to each particular case." *Vol. 30, p. 182.*

"In an action against a railroad company for injuries received by the plaintiff, in a collision between a locomotive and the wagon in which plaintiff was riding, negligence on the part of the person owning and driving the team attached to the wagon affects the right of the plaintiff to recover equally with her own negligence.

"The plaintiff cannot recover in such action if her own negligence, directly or proximately, contributed to produce the injury, though the defendant's negligence may also have concurred in producing the result.

"In such an action the burden of proof is upon the plaintiff to show that she acted with due care, or that her own negligence did not contribute to the injury, as well as that the defendant was guilty of such negligence." *Vol. 25, p. 274.*

"An engineer, who in running a railroad train is injured while he is disregarding the instructions which the railroad company had issued for his guidance, and is therefore guilty of gross negligence contributory to this injury, cannot recover damages of the company." *Vol. 26, p. 255.*

Urinary Analysis. Its Value in the Diagnosis of Affections of the Liver.

BY REUBEN A. VANCE, M. D., GALLIPOLIS, OHIO.

The value of chemical and microscopical analysis in diseases of the kidney is so generally recognized, even by non-professional persons, that public sentiment demands a familiarity with those methods of research on the part of all practitioners. The fact that a knowledge of the condition of the urine is equally important in order to recognize certain morbid states of the liver, is not so well known by either a certain proportion of the profession, or the educated classes of the public. Dr. George Harley, Professor of Physiology in University College, London, in an able article in the *Medical Review* for September, 1862, gave a brief summary of what was then known relative to the value of the analysis of the urine in the diagnosis and treatment of hepatic disease. Since then, however, contributions to our knowledge of the subject have generally been buried in treatises on affections of the kidney. Dr. Harley's article met my eye in 1867, and having had occasion to employ repeatedly certain of the tests he recommended, I will briefly recount my experience, for the benefit of those called upon to treat obscure hepatic diseases.

In cases where disease of the liver is suspected, percussion will always constitute an invaluable method of research. By enabling the observer to map out, with accuracy, the outline of the liver, it reveals enlargement or diminution in the size of that organ. When there is reason to suspect derangement of any of the abdominal viscera—especially if a discolored skin, pain in the right hypochondrium or under the shoulder-blade, not to speak of clayey stools or jaundice—the physical condition of the liver should be carefully inquired into. Whether any alteration in its size can be detected or not, there is one simple test which should be applied to the urine—that is, the application of half a drachm of strong nitric acid to half an ounce of the secretion. This test is based upon the observations of Dr. Eiselt, of Prague, who, in 1858, called attention to the fact that in certain cases the urine, although quite clear when passed, gradually became quite dark, with time. He further showed that by adding nitric acid, the clear urine could be made to assume a black hue. Moreover, in the three cases of this kind that he saw, all proved finally to be suffering from melanotic cancer. Dr. Harley also had a case of the same kind, and by employing nitric acid, was enabled to diagnosticate correctly the existence of melanotic cancer from the change to a black hue of the previously light-colored urine. Dr. Harley, in his work on "The Urine and its Derangements," warns against diagnosticating the presence of malignant disease in cases where there is albumen in the urine that changes from light to dark, upon the addition of nitric acid. On page 114 of the American edition, he says:

"Although, then, it is no doubt quite possible to have albumen in the urine in a case of melanotic cancer, yet, as albumen is an almost invariable concomitant of the brown and black urine of other diseases, while it is only exceptionally present in that of malignant affections, we may, perhaps, as I shall afterwards show, be able to make use of its presence as a distinguishing sign, especially if it be in accordance with the history and other symptoms of the patient."

In cases like the foregoing, where melanine is found in the urine, without albumen at the same time being present, percussion reveals more or less enlargement of the liver, when that organ is the seat of the carcinomatous growth. In another group of cases, the liver, on the contrary, is reduced in size—it is becoming atrophied, and the atrophy is either acute or chronic. It was once the fortune of the writer to see a patient through an illness which two of the most experienced diagnosticians of New York city pronounced acute yellow atrophy of the liver. Every drop of urine passed by the invalid was carefully collected and examined with the microscope, and the residue evaporated to the consistency of syrup, and again subjected to microscopical investigation. The patient died within ten days of admission into the hospital, and great interest was felt by all the physicians who had seen the case, in the result of the *post-mortem* examination. There was but one symptom—rather, but one physical sign—wanting in order to make the case a perfect illustration of the disease it was supposed to be an example of, and despite its absence, no one, prior to the revelations of the death-house, doubted but what the case was one of acute yellow atrophy of the liver. The missing sign was the absence of the microscopical evidences of tyrosine and leucine, which Frerichs says are invariably to be found in the urine of patients suffering from acute yellow atrophy of the liver. Yet, when the body was opened, the liver was found to be entirely unaffected; the patient had died from inflammation of the investing membranes of the brain. In a case of acute yellow atrophy, reported in the transactions of the London Pathological Society, the disease was diagnosticated mainly from the presence of microscopical evidences of tyrosine and leucine, and the correctness of the diagnosis was verified by the result of the autopsy.

Dr. Harley has shown that chronic atrophy of the liver—a common and very obscure disease—can be discriminated from other affections of that organ by the presence of these two substances. In every case of obscure hepatic trouble, where percussion fails to reveal enlargement of the organ, tyrosine and leucine should be looked for. They can be most readily recognized with the microscope when the urine, in which they are supposed to exist, has been carefully evaporated to the consistency of syrup. Tyrosine resembles needles and stars, under the microscope; leucine looks like round, yellow balls, some of which are spiculated.

Occasionally a case will present itself in which there is evident diminution in the size of the liver, either with or without jaundice, in which the urine may contain neither melanine, tyrosine or leucine, the only abnormal ingredient being a spontaneous deposit of free uric acid crystals among the amorphous urates which are greatly in excess. Quite a number of cases have occurred in which it has been possible to discriminate between cancerous and non-malignant diseases of the liver by paying attention to this fact: In cancerous disease of the liver the urates and crystals of uric acid are in excess, and as the disease progresses, they both become more and more plentiful; while in cases of non-malignant affections of that organ, uric acid and the urates are less plentiful than in health, and as the disease progresses, they may gradually diminish, and ultimately disappear, before death ensues.

One very important service afforded by urinary analysis in the diagnosis of liver diseases, is the aid it yields the physician in discriminating between jaundice due to obstruction, and that arising from suppression—the one to reabsorption of the secreted bile, and the other to suppression of the biliary function. The morbid products contained in the urine vary with the form of the disease, and by a simple method of analysis, it is possible to distinguish between them. In jaundice from suppression, the urine contains only those biliary ingredients which exist preformed in the blood, while in jaundice from obstruction, on the other hand, the urine contains, in addition to these, the materials generated in the liver itself, and which have been reabsorbed into the circulation from the distended gall bladder and ducts. The following is Harley's method of distinguishing them: To two drachms of urine in a test-tube, add a piece of loaf sugar the size of a pea, shake well, allow to stand for a moment, and then add half a drachm of strong sulphuric acid, taking care that the two fluids are not mixed together, but simply apposed. If at the time of contact of the two fluids a scarlet or purple color is produced, it proves that the acids of the bile are present, and the case may consequently be put down as one of jaundice from obstruction. On the other hand, if no bile-acid reaction, but merely a browning of the sugar be observed, the case is one of suppression.

On the Etiology of Certain Forms of Insanity, with a Proposed Modification of Treatment.

BY F. BRADNACK, M. D., NEW YORK.

Ham.—How came he mad ?
Clown.—Very strangely, they say.
Ham.—How strangely?
Clown.—Faith, e'en with losing his wits.—*Hamlet.*

I profess a deep conviction that man was, and is, a fallen creature; not by accidents of bodily constitution or any other cause which human wisdom in a course of ages might be supposed capable of removing; but, as diseased in his will, in that will which is the true and only strict synonym of the word I, or the intelligent self.—*Coleridge.*

We have it for an aphorism, that it is the tendency of the human mind to run to extremes. Probably no better illustration of the truth of this assertion could be desired than that which is offered by some of the results of modern scientific speculation concerning the etiology of insanity, and certain other allied diseases, characterized by morbid action in the cerebro-spinal centers, and in the psychical and mental processes. It will be the purpose of this paper to endeavor to establish two points; first, that certain doctrines now coming to be generally accepted relative to the causation of certain forms of insanity are not altogether based on sound reasoning; and, second, that they fail to satisfactorily account for at least a portion of the phenomena they assume to explain.

To define it briefly, the doctrine now inculcated by many of the ablest physiologists, and psychological pathologists, and which for several years has gradually been gaining ground, is, that every case of mental aberration, great or small, is the direct and necessary result of a *physical* change in some portion of the nervous centers; and, furthermore, that such resultant aberration can be occasioned *in no other way.* These assertions are made partly as the result of examinations where, in certain cases, post-mortem lesions of the nervous centers have been found, and partly by the assumption that, because discovered in some cases, they, therefore, exist in all, despite that our present means of examination fail to show them. Now, that physical lesions may exist in the majority, or in all cases of insanity, we do not deny. What we dispute is that physical lesions of nerve structure are the only conceivable or possible factors in the causation of insanity.

In this connection it will be proper to remark that for the scientific investigations and pains-taking researches in the strict realm of fact of the eminent physiologists and psychologists of the present day (such as Bain, Maudsley, Brown-Sequard, Flint, Hammond, and others), the writer entertains a profound respect and admiration. With demonstrated facts there can be no quarrel; and it is, therefore, not against facts, but against what appear to be unwarrantable assumptions from facts, that we protest; against too hasty generalizations from insufficient data, which operations are in themselves essentially unscientific. Therefore, we desire to examine into certain of these theories, with a view to ascertain whether the reasoning on which they are based be really as sound as it is presumed to be. The writer does not dispute that in many cases of mental derangement contemporaneous physical lesions of nerve-structure may possibly exist. We are aware that in many cases the existence of such lesions can be demonstrated. All this is granted. But we believe the fallacy to consist in this, that it is assumed that a physical lesion is *always* the necessary first cause of mental disorder. So far from accepting this theory, we believe that lesions of the intellectual nerve centers may, in some cases, be the result of psychical influences, centric or eccentric. This cannot just now be proved; but neither can everything claimed by the modern scientific theories be at present proved. Some of their deductions are as yet pure assumptions. They beg their question.

Partly as a recoil from the superstitions and ignorances of past ages, during which all instances of insanity were regarded as the result of direct and immediate diabolic action on the human soul, and partly from the results of modern researches into the physiology and pathology of the nervous system, it has come to pass that we have allowed ourselves to be carried to the opposite extreme, namely—the assumption that all cases of insanity are invariably, and of necessity, the result of physical alteration of nerve-structures. We think we do not misconstrue or mistake the teachings of several of the modern writers on psychological pathology in so asserting. As before remarked, we entertain only respect for the able labors of these scientists in their searches for and elucidations of facts. It is only when, leaving the domain of physical fact (the true scientific domain), they enter the field of speculation, that it becomes proper to take exception. Let us briefly state these exceptions: In certain cases of insanity, post-mortem examinations reveal certain definite changes in portions of the encephalon. In other cases of equally palpable mental aberration, no abnormal change is discoverable by any means within our power. Yet it is thought by many that if we possessed greater microscopic power, we should, in every case, discover definite changes in the cerebral structures. We do not deny that probably many of the morbid changes which take place in the brain elude our possible observation from their subtlety and minuteness; and it may safely be granted, that had we greater microscopic power, we might detect many changes which now escape us. But because in some forms of mental derangement physical alterations of nerve-structures co-exist, it does by no means necessarily follow that therefore these physical changes exist in all cases. And thus the assertion that they so exist is a pure assumption, unwarranted by the facts; moreover, unless we mistake her office and misunderstand her functions, science steps out of her way when she leaves the plain path of physical fact to meander through the flowery fields of speculation. In plainer words, she ceases to mind her own business. We think she has no right to assume that physical alterations of brain structure must necessarily exist invariably in all cases of insanity. We think she should not assert this until she can prove it. We know she cannot now prove it. For the same reason we question her right to assume that extrinsic malign spiritual influences never affect the human mind; for neither can she prove this.

To define our position more exactly, we believe that in the reasonings of the modern psychologists there exists a prime fallacy, which fallacy is furthermore the root and offspring of innumerable erroneous generalizations and conclusions. This is the materialistic theory which practically denies the existence of the human spirit as a psychical entity *per se*; regarding the whole man as material, and mind as merely a form of force, in no way separate or distinct from matter, neither necessarily immortal. We believe that this fundamental fallacy lies at the foundation of all the late scientific reasonings respecting insanity. Let us take an illustration from the writings of one of the ablest disciples of this school, Professor W. Hammond, of New York. In this author's able treatise on the diseases of the nervous system, in the chapter on insanity, we find the following remarks (the italics are our own):

A.—"The brain is the chief organ from which the force called the mind is *evolved*, and, so far as the present enquiry goes, may be regarded as the only one."

B.—"By mind, we understand a force *developed by nervous action*, and especially by the action of the brain. The modifications which this force, in its cerebral relations, undergoes outside of the limits of health, either as regards excess, deficiency, or variation of quality, are embraced under the term insanity."

C.—"The mind, therefore, as before stated, is a compound force, *evolved by the brain*, and its elements are perception, intellect, emotion, and will."

D.—"Enough has been said to indicate how clearly the relationship between the brain and mind is that of *matter and force*."

With all respect to the eminent author, we dissent from the views here advanced, believing them to embody the fundamental fallacy before alluded to; fundamental in that it mistakes the mechanism of a wondrous machine for the motive power of that machine, simultaneously confounding the two together, while denying the existence of one of them. If we rightly understand Prof. Hammond, he here asserts, by implication, that the brain is not only the organ of mind, but that it (the physical nervous structure) is also the will, the reason, the *ego*, that which (call it by whatever name we please) constitutes our individuality. This, though not explicitly, is implicitly asserted. The phrase: "The mind is evolved by the brain," implies all this. Prof. Hammond's doctrine, as here set forth, makes the spirit that is in man as mortal as his poor perishable body; makes it, indeed, identical with that body. The reasoning that results in this melancholy conclusion is briefly this: It is argued (and very rightly), that various considerations go to prove the brain to be the organ whereby mental operations are performed. So far so good. But at this point we believe that an error is made, the error being the assumption that, because the brain is doubtless the organ of the understanding, and also the medium through which the will is manifested, the machine whereby its spiritual motions and states are rendered cognizable, and that because disease or injury of the brain substance is frequently attended by morbid articulations of, or total suppression of the motions of the soul (the will), that therefore this brain, this physical organ, is and must be the will, the reason, the *ego* itself. This we believe to be the prime fallacy. Perhaps its exact nature may best be made apparent by an illustration. For the performance of what may be denominated the functions of a steam engine, the integrity of the boiler and its appurtenances is necessary. In this boiler is contained the motive power of the engine (*i. e.*, the steam). When the boiler is intact, and the various parts of the engine in working condition, the motive power, acting through and from the boiler, produces certain definite and regular results upon the cylinders and pistons, which, in their turn, produce regular revolutions of the wheels. But, if the pistons be broken, or if the cylinders be injured, so that the steam does not properly enter them, either the revolutions of the wheels are performed imperfectly, or they are entirely suspended. Now, let us suppose, for argument's sake, a person unacquainted with the nature of the motive power, and the exact construction of the machine. In his unaided endeavors to comprehend it, and to discover its motive power, he notices several instances in which the pistons of working engines become broken by external injury, or by internal defect of structure. He also observes that in each case there ensues a stoppage in the working of the engine. Upon this evidence he straightway reasons as follows: "It is my opinion, after careful observation, that the pistons constitute the true motive power of the engine, for the sufficient reason that whenever they are injured or broken, the usual operations of the engine are either seriously interfered with, or are entirely suspended." Would not this logic be precisely similar to that employed by those who denominate the brain to be the spirit itself, instead of the medium, the mechanism, through which the spirit operates? In opposition to this materialistic, and, as we believe, erroneous view of the human mind, we think that the only true solution of many of the enigmas of insanity is to be found in regarding man as a spiritual being—as essentially a spirit—and not merely a perishable animal; in viewing the spirit as the real man, and the material body as merely an instrument of the spirit, a most marvelous and wondrously complex instrument, adapted to his material environment in the physical world, which is at present his theater of action. In other words, we believe the psychology taught in the New Testament to be correct. Thus regarded, it is as conceivable that man's spirit should be influenced by invisible extrinsic psychical forces, good or evil, as that his material body should be affected by visible forms of matter. Furthermore, it is as easily conceivable that man's spirit may be influenced by external psychical forces, benign or malign, independently of any bodily influence or condition whatever, just as his body may be injured after the departure of the spirit from it. This admitted, certain phases of insanity, inexplicable by the materialistic theory, become easily explicable, upon assuming the action of extraneous evil psychical influences. Should it be asked what is the proof of the operation of such influences, the answer is that proof positive cannot be given, for the reason that the nature of the facts at issue preclude this kind of proof. But, judged by the doctrine of probabilities, the hypothesis will appear to rest on a firm basis of sound reason. Moreover, we find it authoritatively asserted by the Founder of Christianity himself, that at least some forms of insanity are the results of the operation from without of malign spiritual influences upon the human soul. The question that follows is, do or do not facts, psychological and pathological, give any support to this theory of theosophic psychological pathology. With a view to answering this question, it is one of the objects of this paper to suggest, for consideration, two points: First, that the supposition of the exertion of extrinsic malign psychical influences as causative of at least some forms of insanity, is eminently reasonable; and, second, that the correctness of the supposition is rendered highly probable, from the nature of the phenomena presented in certain cases. Without attempting to prove absolutely this theory, we believe, nevertheless, that strong presumptive proof of its correctness may be adduced. The argument is, that the action of malign psychical influences on the human mind will account far more philosophically for at least a certain proportion of cases of insanity than will the physical theory. In other words, we would invite the attention of scientific psychologists to the New Testament, or theosophic doctrine of the etiology of at least some forms of insanity, namely—the possible influence upon the human mind of an extrinsic, malign, perturbing psychical force, at some times slight—at other times of a power so tremendous as to entirely deprive of freedom its unfortunate victim. As before said, it is not asserted that this evil external influence operates in all cases; neither, perhaps, does it ever operate entirely unaided from within; that is to say, it would, *a priori*, seem reasonable to assume that the most favorable opportunity for the manifestation of this extrinsic influence would be at the time of the existence of an intrinsic weakness, at the time when, from some cause or other, a loop-hole of entrance had been made into the human citadel. For instance: Melancholia may result naturally from a too rapid disintegration of the cerebral nerve-cells, caused by undue emotion or excessive intellectual labor. Here is a loop-hole into the citadel; now, if we grant the existence of a spiritual enemy of mankind, ever watchful of possibilities to injure, and, if possible, to destroy us, it does not require much further concession to allow that such an enemy would be very likely to avail himself of any and every chance to take the human soul at a disadvantage. In this consideration is it of no weight that Shakspeare apparently held this identical opinion? If he did not hold this opinion, what mean Hamlet's words:

> "The devil hath power
> To assume a pleasing shape; yea, and perhaps,
> Out of my weakness, and my melancholy,
> (As he is very potent with such spirits),
> Abuses me to damn me;"

And also the allusion to the malignant operations of the "foul fiend" in *King Lear?* Indeed, Shakspeare's words define very accurately the theory here advanced, namely—that a powerful evil spirit, or spirits, may take temporarily partial, and sometimes, apparently, complete possession of the human will, understanding by the term *will* that something which, *per se*, constitutes the man himself.

Now, are there in any cases of insanity which come under our observation as physicians and psychologists, any phenomena which would sometimes appear to indicate that a demoniac power had assumed control of a human will and intelligence? Will not the records of every insane asylum furnish numerous affirmative answers to this question? But, by way of illustration, we here cite two modern cases from the writings of distinguished psychologists. The first, from the French of M. Georget, we transcribe from the treatise of Dr. Hammond, aforementioned: "Henriette Cornier, a woman of 27 years of age, was of a joyous disposition, and gentle in her ways, and particularly fond of young children. In June, 1825, a notable change ensued in her; she became sedate, seldom laughed, sighed often, was taciturn and neglectful of her work. She was accordingly discharged from her service as domestic, and returned to her friends. She soon after made an attempt at suicide, by throwing herself from the parapet of a bridge, but was prevented. She then entered the service of a Madam Fournier, still being disposed to melancholy, notwithstanding all efforts made to restore her. On the 4th of November her mistress went out, leaving Henriette at her work, and directing her to go to a shop kept by a woman named Belon, and get some cheese. This woman had a very beautiful little daughter not two years old, for whom Henriette had always manifested a great liking. On this occasion she fondled the child as usual, and persuaded her mother to let her take it out to walk. Henriette took the child to Madame Fournier's house, and going first to the kitchen, obtained a large knife, with which, and the child, she went to her own room. Arrived at her own chamber, she laid the infant on its back on the bed, and seizing its head with one hand, she, with the other, drew the knife rapidly across the neck, and severed the head from the body before her victim could utter a cry. Before, during, and after this crime, she had, as she declared, no emotion or feeling of horror. On the contrary, she was calm, collected, felt neither pleasure nor sorrow, but apparently acted mechanically. Two hours afterward the mother came for her child; Henriette stood at the door. 'Your child is dead,' she exclaimed, and then, entering the room, seized the head of the murdered infant and threw it into the street. On the arrival of the officers, she was found sitting in the room with the dead body, gazing at it, her hands covered with blood, and the knife near her. She did not deny her crime, and exhibited neither penitence nor remorse. 'I intended to kill it,' she said; and, on being interrogated, declared that she had no particular motive; that she had experienced the inclination, and she was destined to perpetrate the act."

The following case is transcribed from Dr. Maudsley's lectures on "Body and Mind:"

"Take, for example, a case which is one of a class, that of the late Alton murderer, who, taking a walk one fine afternoon, met some little girls at play, enticed one of them into a neighboring hop-garden, there murdered her, and cut her body into fragments, which he scattered about, returned quietly home, openly washing his hands in the river on the way, made an entry in his diary: 'Killed a little girl; it was fine and hot;' and, when forthwith taken into custody, confessed what he had done, and could give no reason for doing it."

These are but two of many similar cases which might be cited from the records of insanity. But do we not almost daily read in the newspapers of actions to which the term fiendish malignity is precisely appropriate—actions which, from their horrible atrocity, we almost instinctively define as devilish, fiendish? Glance for a moment at the case of the murderer Williams, whose fearful story is so graphically narrated by De Quincey, under the title of "Three Memorable Murders." Here was a man whose sole purpose in life was the murder of his fellow-creatures, and in each case, persons who were previously unknown to him, and who had never in any way done him the slightest injury. If ever murder was practiced as a fine art, and regarded esthetically, it was in this man's case. De Quincey expressly declares that the evidence went to show that Williams committed murder from pure love of murder. Now, in considering these three cases, those of Henriette Cornier, the Alton murderer, and Williams, the London murderer, who can deny that, given a predisposition to certain forms of crime in a human soul, a powerful spiritual enemy of mankind *may not* intensify the existing inclination, and that, gradually gaining entrance to the mental and spiritual outworks, he may not by degrees force his way until he obtain possession of the citadel itself? Who shall deny at least the possibility of this? The admission of such a possibility is all that is required in the present argument. As presumptive proof of its soundness, appeal may safely be made to facts daily before us. Will any theory of physical brain degeneration or alteration explain as satisfactorily the horrible murders and other crimes (now of almost daily occurrence), as will the supposition of a temporary demoniac possession of the individual? Wanting the existence of a malign spiritual invisible power, inimical to man, what finite mind shall mark the limits of its possible action? Is it not, moreover, reasonable to suppose that the subtlety of its approach will in most instances make its detection impossible to minds like ours, even when most wary, and most carefully fortified? How much more easy then will be the approach of such a power towards, and its entrance into, a mind robbed by physical disease of some of its natural defenses—a mind, for instance, laboring under the "weakness and melancholy" referred to by Shakspeare! Is it not exceedingly reasonable to suppose, first, that the defenses of the soul may be weakened by intrinsic causes; and, second, that this weakness may be taken advantage of by an extrinsic evil power? But, in addition to its innate probability, we have, if we accept the teaching of Scripture, the assertion several times repeated by the Divine Physician himself that, not only is there a possibility that the human will may be subjected to a more powerful evil will, but the asseveration that such subjections were of frequent occurrence in Palestine at that time. If this testimony be admitted, the question at once arises, if evil spirits could in those days obtain control over human wills, *why not now?* There exists, furthermore, in the very nature of the (so to speak) psychical lesion in certain cases of insanity, an apparent hint of the direction from which the blow has come. Cases are frequent in which the insanity assumes the form of an ineradicable conviction on the part of the sufferer that he or she has committed the unpardonable sin (whatever that may be) and that, in consequence, eternal damnation is decreed to him or her. How hopelessly incurable such cases usually are we do not, as physicians, need to be told. Now, granting the reasonableness of the theory here advanced, of the possible action of an inimical spiritual power on the human mind, would not the production of just such an illusion be very much what might be expected under the circumstances? Again, in absence of exact knowledge, what would seem more likely to be the effects of a demoniac perversion of the human will than the horrible thoughts, words and deeds which we know are sometimes habitual in certain cases of insanity? Language and actions so utterly vile, and so unutterably bestial, obscene and horrible, as to be inexpressibly appalling to any one who believes man to have been originally formed in the divine image? Again, does not the fact that the most fearful profanity, and the most dreadful blasphemies habitually characterize certain other maniacs, point in the same direction, and indicate the infernal source whence they, and such like, come? If these and other considerations shall lead us to admit the reasonableness of the theory here advanced, it appears to the writer that a glance at the results of our present psychological therapeutics will afford us some additional evidence in support of the position. Now, what are the results usually obtained in cases of confirmed melancholia, hypochondriasis, emotional insanity, and mania? Are they flattering? Are they even reasonably satisfactory? We all know what the answers to these questions are. And, knowing the inevitable answers, is it not time to ask ourselves another question, namely—whether it may not be possible that we have never hitherto fulfilled properly the therapeutical indications; in plainer words, never used the right remedies? We make the enquiry, we trust, in all modesty—

> "Asking as one who fain would know."

If it be true that hitherto we have made the mistake of attempting to heal purely psychical lesions by physical remedies, is it strange if our efforts have been unsuccessful?

The Divine Redeemer of mankind successfully treated several cases of insanity, included in which were some of the worst forms of what we now denominate acute mania. It is recorded that, after curing one such case, He distinctly informed His disciples (whom He also commissioned to treat such cases), that "that kind" could be healed only "by fasting and prayer." Now, are we wiser than the Divine Physician, or is our knowledge of psychological pathology liable to be greater than that of Him who made us? On the other hand, is it not just within the scope of possibility that, in our wisdom, we have left unused the most potent, and, perhaps, the only possible therapeutical agent in this malady? We ask whether it is not possible that in neglecting special prayer to God for the removal of this most terrible disease, we have not unwittingly omitted to use the only remedy possible against it? While gladly recognizing the vast improvements that have of late years been made in the asylums and institutions devoted to the care of the insane, chief among which is the kind and humane treatment now usually employed, yet, may it not be questioned if now, at this day, we can furnish a much more satisfactory answer to Shakspeare's query: "Canst thou minister to a mind diseased?" than could have been furnished in the poet's own day. Without depreciating one atom the functions of the scientific physician, is it not very probable that the treatment of some forms of insanity belongs conjointly to the clergyman *and* the physician?

While it must be admitted that we have made immense improvements in the care of the insane, can it be truthfully asserted that we have made a corresponding progress in the CURE of the insane?

In conclusion, the very fact that the proposed treatment has hitherto never been systematically tested, is in itself a sufficient reason why it should at least be tried, for it needs no argument to prove that it is our duty, not only as physicians, but as citizens, and as members together of poor suffering humanity, to give those afflicted by this most dreadful of all diseases, the benefit of every and any remedy that can be suggested.

It may be that if the plan of conjoined physical and spiritual therapeutics here suggested were adopted in certain cases wherein they seem indicated, we might, perchance, discover that, in the noble words of Tennyson:

> " More things are wrought by prayer
> Than this world dreams of."

Anyhow, if the lesion in question be really psychical, if insanity be sometimes in reality a spiritual disease, is it not truly preposterous to attempt to cure it by means of physical remedies? Is it, indeed, any less absurd than would be the attempt to heal a fractured bone, or restore a luxated joint by the topical application of an emollient liniment?

It is, furthermore, just barely possible that there may yet be *some* few things in heaven and earth of which even we of the medical profession have not hitherto dreamed; and, should it chance that the therapeutical method suggested in this paper (which method, by the way, is not put forth as original by the writer—it having been clearly taught in Palestine, though not in a medical school—above 1800 years ago), it can, at least do no possible harm to test its efficacy; while, in its favor, this may be said, that if it present no other recommendation, it unquestionably possesses at least one advantage over all other remedies—*it costs nothing;* for, in His own merciful words, He who made us is ever more willing to hear us than we to pray.

November, 1877.

A Case of Scarlet Fever.

BY EDWARD WATSON, M. D., GRAND RAPIDS.

In February, 1876, we had an epidemic of scarlet fever in Plymouth, Wayne Co., which extended to many families in the village. The case which I consider worthy of special mention, occurred in a family of three children, all of whom were affected by the disease, of a malignant type. The patient of whom I make special mention was a girl aged 8 years — the first of the family attacked by the disease; the other children were attacked within ten days after. In this case the disease was ushered in by intense fever, with constant delirium for two days. The eruption was well marked, but not evenly distributed over the body. The patient made, apparently, a rapid recovery; there was no desquamation nor symptoms of nephritis. The patient (with the exception of a slightly sore throat) was apparently quite well for about three months, when I was called to see her. Her father came for me, saying that she was all broken out. I found her with all the symptoms of scarlet fever. The eruption appeared on the face and extended to the whole surface of the body. The fever was mild, and the eruption disappeared entirely on the following day. The child got up and appeared quite well (there was no desquamation), but continued to have a sore throat, which was very persistent, and did not seem to be benefited by any treatment. After several months she was again seized by sickness, vomiting and fever, followed by an eruption, which disappeared on the day after its appearance on the surface. After this attack her health gradually failed; the tongue was constantly coated with a heavy brown coating; the throat gradually became worse; the mouth was covered with ulcerated patches, which continued to resist all treatment. The stomach became very irritable, and in August, 1877, more than eighteen months after the first attack, the patient grew rapidly worse. The ulceration in the throat and mouth increased, the stomach would not retain nourishment, and we had almost despaired of every hope of her recovery, when I was called hastily to see her, as she was very much worse. I saw her at 4 o'clock, P. M.—found her suffering intense pain, vomiting, high fever, etc.; I was somewhat puzzled with the case, as I had been for a long time. I saw the patient the next morning; a very slight eruption could be seen on the face and arms, which continued to increase, and on the second day had extended to the entire surface of the body. The eruption was very complete, slightly elevated by minute vessicles. Here, again, I recognized an undoubted case of scarlet fever, which this time assumed all the phenomena peculiar to scarlet fever. The desquamation was the most perfect I have ever seen in a case of scarlet fever. The nephritic symptoms made their appearance very early in the progress of the disease, and continued several weeks, making a very tedious recovery. However, the recovery has been complete, and the patient is now enjoying perfect health in every respect.

Will some of our modern pathologists explain this singular case? Where did the poison come from in these repeated attacks, always disappearing suddenly, without being followed by desquamation, with constant disturbance of the general health, sore throat, etc.; ending, after nearly two years from the date of the first attack, by an intensified attack followed by perfect desquamation, and ultimately by perfect restoration of the general health?

Was the specific poison constantly in her system, or where did it come from.

Reports of Societies.

Livingston County Medical Association.

HOWELL, December, 1877.

THE regular meeting of the Association was held at the parlors of the National Hotel in this village, on the 19th inst. Called at 11 A. M., Vice-President Dr. Marsh, of Howell, in the chair.

The following members responded to the roll call: Drs. Marsh, Wells, Spencer, Beebe, Cruickshank and Hutton, of Howell; Drs. McHench and Wiley, of Brighton; Drs. Hayford and Murphy, of Hartland; Dr. Lindsley, of Highland; Dr. Howes, of South Lyon; Dr. Sigler, of Pinckney; Dr. Smith, of Le Roy; Dr. Caldwell, of Byron; Drs. Austin and Cooper, of Fowlerville; and Dr. Goodno, of Oak Grove.

Minutes of last meeting read and approved.

Dr. Wiley was elected assistant secretary *pro tem.*

The committee appointed at a former meeting, to investigate the charge preferred against Dr. A. C. Miller, for having obtained admission into the Association through false pretenses, representing that he was a graduate of the Royal College of Physicians and Surgeons, of Kingston, Canada, and exhibiting a certificate in testimony of his claim, reported that, having corresponded with Dr. Fowler, registrar of the faculty of said college, who says that "A. C. Miller's name is not found among the list of graduates of that institution, and to the best of his knowledge they never had any such student," and from all the evidence that had come to the knowledge of the committee, it was their belief that Dr. Miller was not a graduate of any college of regular medicine, and that he had obtained membership in the Association through false pretenses. Whereupon, the committee was discharged, and the following resolution was offered by Dr. Hutton, which was adopted:

Resolved, That the secretary of this Association is hereby directed to communicate the findings of the committee of investigation, to Dr. Miller, and cite him to appear at the next regular meeting of the Association, to be held at Fowlerville, on the 20th of March, 1878, to show cause why he should not be expelled from the Association.

The following preamble and resolution were offered by Dr. Beebe, and were adopted:

Believing that it would be, and is, to the best interest of the members of this Association and their patrons to make short settlements, it is hereby

Resolved, That we, as an Association, and the individual members thereof, adopt the rule of making semi-annual settlements with our patrons; said rule to take effect January 1st, 1878.

On motion, the secretary was instructed to forward a copy of the Constitution and By-Laws of this Association, to the secretary of the Michigan State Medical Society, in compliance with the requisitions of Sec. 5, of Art. iv, of the By-Laws of said State society. Also, that a copy of the transactions of the meetings of this Association be forwarded by the secretary to the Detroit medical journal for publication.

The Association then adjourned until one o'clock P. M.

AFTERNOON SESSION.

The Association met at the appointed hour, and was called to order by the vice-president.

On motion of Dr. Hutton, Professor Theodore A. McGraw,

M. D., of the Detroit Medical College, being present, was elected honorary member of this Association.

On motion, the Association went into a clinical session, at which there were over a dozen cases presented, and each patient was examined by the Association as a committee of the whole, or by assignment to special committees. Many of these cases were of unusual interest, but were too numerous for the time allotted, to secure justice either to the patients or the counsel, which led to the appointment of a committee to supervise the presentation of clinics at the meetings of the Association hereafter.

Following the clinical session, a paper was read by Dr. McGraw, of Detroit, on "The advantages to be derived from the study of the ultimate effects of surgical diseases and operations," for which the thanks of the society were tendered. After which, the following report of a case of successful tracheotomy, performed by Drs. McHench and Wiley, was read:

A child, aged fourteen months, female, healthy and fleshy, was brought to me by its father, who stated that six hours before, while playing upon the floor, the child was observed to strangle and cough, after which the breathing was obstructed and difficult. The voice, cry and cough were natural in tone, but deficient in power. I diagnosed a foreign body in the wind-pipe. I could see no hope of relief but through an operation. I took the child to my friend, Dr. McHench, of this place, who confirmed my diagnosis, and kindly consented to operate if no other relief presented.

I proceeded to make, with the assistance of a blacksmith, a pair of slender forceps to operate with; and after forty-eight hours, the dyspnœa increasing in urgency and the friends being fully convinced that nothing but an operation could save the child, we proceeded to operate. The doctor made an incision about midway between the larynx and sternum, seven-eighths of an inch long, and carefully dissected down to the trachea. The little bleeding was entirely stopped with sol. per. sul. fer., and he proceeded to pierce the wind-pipe. This was no easy matter, the urgency of the respiratory desire causing a rapid to and fro motion, which necessitated its being held firmly with a rat-tooth forceps, while the doctor made an opening about one-half inch long. A little frothy mucus escaped. He then introduced the forceps, and felt a hard substance at or near the bifurcation. After several efforts, he brought up with the forceps the husk of an acorn nut, about one inch long by one-fourth inch in width. Normal respiration was restored. The wound was closed with sutures and adhesive straps, and the child made a rapid and perfect recovery.

C. B. WILEY, M. D.

BRIGHTON, December 19, 1877.

The subject named for discussion at the next meeting was pneumonia, and Dr. McHench appointed to open the discussion.

The Association then adjourned to meet at Fowlerville, March 20th, 1878.

R. C. HUTTON, M. D., *Secretary.*

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D.

Practical Medicine.

DIFFERENCES BETWEEN ANÆMIA AND CHLOROSIS.—Zimmermann (*Vol. XVI Ziemssen's Cyclopædia*, page 501), gives the following: (1) In chlorosis proper, the change in the blood appears to be strictly limited to the red corpuscles, whereas in anæmia, other constituents of the blood, especially the albuminates of the plasma, are also modified. (2) In many respects the etiology of chlorosis is peculiar and obscure, and its pathogeny does not admit of being traced, like that of ordinary anæmia, to causal factors with which we are familiar. (3) The striking effects of suitable treatment would oblige us, even in default of other reasons, to separate chlorosis clinically from other forms of anæmia.

DIABETES MELLITUS—MODES OF ITS DEVELOPMENT.—Senator (*Ziemssen's Cyclopædia, Vol. XVI*, page 965), formulates the most probable modes as follows: (1) An abnormally heightened saccharinity of the chyle or of the blood in the portal vein, or of the two together, in consequence of an impeded conversion of the sugar present in the intestine into the lacticacia, or in consequence of accelerated absorption of the sugar. (2) An unnatural acceleration of the portal circulation, whereby on the one hand more sugar reaches the liver, a part of which, without being changed into the glycogen, passes on into the circulation; and on the other hand, the glycogen formed from sugar or other materials passes into sugar more rapidly, and in greater quantity, and is washed away.

THE OPIUM TREATMENT OF PERITONITIS. (*Practitioner*, February—*Can. Medical Record*, July, 1877.)—Dr. W. H. Broadbent, physician to St. Mary's Hospital, London, writes: It is common in fever, whether enteric or typhoid, to have as a complication tympanitis, which may be quite independent of peritonitis or perforation of the bowel. The treatment I have found most useful in relieving this condition, is opium. Occasionally the distension of the intestines comes on very suddenly, when it is not only a source of distress and danger, but carriés very grave prognostic import. Most probably, it is a manifestation of nervous shock, and indicates paralysis of the sympathetic system, with consequent loss of tone in the muscular wall of the bowel, allowing the distension to take place. Under such circumstances, I do not hesitate to give and repeat a drachm of tincture of opium. I have thus frequently seen the tympanitis dissipated in a few hours, with corresponding improvement in the general condition of the patient.

COMPRESSION AFTER THORACENTESIS. (*Bost. Surg. & Med. Jour.*, August 9, 1877.)—Dr. Gueneau de Mussy recommends compression of the thorax after thoracentesis, as after the operation the blood vessels, which were impassable by the pressure of the effusion on the compressed lung, now quickly refill. The sudden change in the mechanical conditions of the pulmonary circulation may have certain anomalies in the functions of these organs as a result. The rapid congestion shows itself by dyspnœa and a sort of whooping cough, which may lead, if the congestion is great, to a sero-albuminous secretion, which is a premonitory symptom of speedy death. It has been advised in large effusions not to empty the pleural sac at once, but to make several successive punctures, in order to forestall evil consequences. Gueneau de Mussy recommends for the same purpose compression of the thorax wall, while the fluid is flowing off, by means of the two hands of an assistant standing opposite the affected side, and compressing the chest. A bandage, closely applied, supplies the place of the hands after the operation. He has always had good results with this maneuvre, and the above-named symptoms do not appear at all, or quickly disappeared, on making use of it.

POISONING BY SALICYLATE OF SODA.—Dr. Peterson (*Deutsche Med. Wochenschrift—Canada Lancet*) mentions a case in which 26 grammes of salicylate of soda (390 grains) were given by mistake in twelve hours. The victim of the mistake was a girl of 15 years. The brain symptoms were most prominent and persistent. These were delirium, partial deafness, ringing in the ears, difficulty in seeing at a distance. There was strabismus and extreme mydriasis. When rational, she complained of headache. The delirium lasted eight days. During that time everything was blank. There was no depression of temperature. There was hoarseness, and respiration increased to 40 per minute, and the skin covered with profuse perspiration. Also, dilatation of blood-vessels in different parts of the body.

GENERAL NERVOUSNESS IN THE MALE.—In a lecture reported in the *Medical News and Library*, S. Weir Mitchel, M. D., says: This condition is rarely mentioned in the books. It is not raised to the dignity of a disease, but sometimes it seems necessary to treat it as such. Sometimes it is ephemeral; often it is too lasting. Occasionally it is due to original defects arising at birth, and is carried to the grave. The most prominent peculiarity noticable in this condition of general nervousness is over-excitability. A state of feeble or tardy nutrition accompanies the nervous condition. The causes are various. Among them may be mentioned enfeebling wounds, general sclerosis, exhausting fever and diarrhœa, paralysis agitans, disorders of the abdominal viscera, self-abuse, sexual excesses, and the use of tobacco.

The treatment resolves itself into a treatment of anæmia, of defects of nutrition and assimilation, and dyspepsia; also, in a change in the daily habits of life, from indoor pursuit to outdoor life; also, into the use of drugs with moderation. Digitalis for palpitations, opium and cannabis indica are indicated in small doses where they are tolerated. Arsenic for a nerve tonic must be long continued. The bromides are useful, especially the bromide of lithia. The combination of the valerianates of quinia, zinc and strychnia is also good.

CARBOLIC ACID IN GLYCOSURIA.—Dr. Garnier records a case of glycosuria which was treated very successfully with carbolic acid. Equal parts of carbolic acid and alcohol were mixed, and of this solution two minims were given for a dose. At no time during the treatment did the dose of the acid exceed six minims per diem.—*Boston Journal of Chemistry.*

Dr. H. Fisher, of Breslau, administers carbolic acid to diabetic subjects before surgical operations. The carbolic acid treatment in diabetes was first recommended by Ebstein and Muller. —*Ibid.*

ARTIFICIAL FOOD IN EARLIEST INFANCY. (*Report of Imp. Foundling Asylum at St. Petersburgh.—Bos. Med. and Surg. Jour.*, Aug. 2, 1877.)—The authors have employed various substitutes for breast-milk, in their asylum, when the nurses' supply was not sufficient (two infants are given to each nurse). The articles in use by them were: condensed Swiss milk, Scotch oatmeal, fresh cow's milk and Nestle's powder.

Children, during the first five days of life, were almost invariably made sick by any one of the above substitutes, which caused disturbances of digestion, and the rate of mortality was increased. Between the fifth and fifteenth day, the Swiss condensed milk acted the most favorably, one part to nine of water. After the fifteenth day the proportion used was one part to seven, or two parts of this solution and one part of freshly-boiled cow's milk. After the second month Nestle's powder was by far the most satisfactory substitute. At the best, however, the attempt to use artificial food of any kind before the end of the first month gave most discouraging results. The authors' method of employing substitutes with infants during the first five days of life was to alternate the breast-milk with the artificial food, giving the former five times daily and the latter four times. The amount taken at each meal varied from two to three ounces. The attempts to increase the digestibility of cow's milk, by the addition of soda or gelatine, were not successful in the authors' hands.

PHYSIOLOGICAL ACTION OF SALICYLATE OF SODA. (*L'Union Medicale.* Sept. 13, 1877.)—Dr. Laborde, in a paper read before the Academy of Medicine of Paris, reports his experience with the salicylate of soda upon dogs and guinea-pigs. Intra-venous injections of the drug were employed, as very small doses by the stomach invariably produced emesis in these animals. For dogs of the average size, a solution of a drachm to a drachm and a quarter of the salicylate in 10-12 c. c. of water, filtered and heated to the temperature of the blood, is slowly injected into the crural vein, so that fifteen to twenty-five minutes elapse before the animal receives the entire quantity. The only phenomena noticed while making the injection were: a slight acceleration of the heart's action and of the respiratory movements, a few plaintive cries and a slight agitation; in some cases there was a little nausea, but it quickly passed away.

Shortly after the injection, pinching and pricking the cutaneous surface called reflex action into play to such a degree that it was perfectly appreciable. At the same time, the animal does not act voluntarily, and has considerable difficulty in keeping himself standing; his walk is reeling and ataxic. He appears deaf and indifferent to external noises; he is plunged into a sort of torpitude and even stupor, if the dose has been sufficiently large; finally, left to himself, he quickly lies down in the position of a sleeping dog, and soon drops into a deep sleep from which it is difficult to arouse him. Experiments upon guinea-pigs gave the same results.

Dr. Laborde draws the following conclusions from his work: 1. The physiological action of salicylate of soda is exerted in an elective and predominant manner upon the phenomena of sensibility to pain. 2. The mechanism of this action resides in the influence exercised by the chemical substance, not upon the conducting power of the sensitive nerve, but upon the center which receives and elaborates peripheral impressions. 3. This action of salicylate of soda upon the functional phenomena of sensibility and consequently upon the cerebral organic seat of these phenomena, explains the effect produced in the morbid state upon the painful symptoms; and it is principally and, perhaps, exclusively by this analysic action that salicylic acid is of such benefit in the case of articular rheumatism.

GUARANA IN MIGRAINE. (*Louisville Med. Times*, Aug. 4th, 1877).—A correspondent of the *Brit. Med. Jour.*, after the employment of guarana in a great many cases of this affection, comes to the following conclusions:

1. True migraine, marked by acute frontal pain, commencing on one side, occasionally both, or going from one side to the other, usually lasting from twenty-four to forty-eight hours, with or without sickness, and relieved or cured by sleep, whether caused by errors in diet or not, will almost invariably yield to it.

2. In young persons, in whom the habit is only commencing, not only does it cure each individual attack, but by persevering, the habit itself is broken.

3. One cause of failure is the smallness of the dose, so that in many cases in which it has been tried before and failed, an increase of the dose has been followed by cure. Twenty-five grains of the powder is the dose for an adult female, half a drachm for a man; less, of course, for younger cases, repeated in one or two hours, if necessary.

CHRONIC PHARYNGITIS.—ITS TREATMENT.—Dr. David Foulis (*Glasgow Med. Jour.*, Oct., 1877) gives an interesting account of the treatment of eighty-three cases of chronic pharyngitis. His object was to test the relative value of various methods of treatment. Twelve cases were treated with a strong solution of iodine, painted on with a hard brush. Result failure. Ten cases were treated by the use of gargles of perchloride of iron. Result failure. Four cases treated with blisters, external, were failures. Fourteen cases treated by the application of solid nitrate of silver resulted unsatisfactorily. Twelve cases were treated by locally applying to the diseased spots a powder composed of equal parts of caustic lime and caustic soda. Result good; but the attendant pain and excessive salivation which followed were serious drawbacks. Thirty-five cases were treated by applying the actual cautery to the diseased spots. Result, all that could be wished. The thickened patches were easily and completely destroyed by the cautery. The pain was trifling, and there was none of the hawking and expectoration of mucus occasioned by the the soda-lime. Enlarged tonsils were speedily reduced by a few applications of the hot iron.

The cautery is best applied at at dull red or black heat, and enough time should elapse between the applications to allow the white eschar to disappear.

The application should only be made at each thickened spot.

INTESTINAL GAS AND FLATULENT DYSPEPSIA.—(*L'Union Medicale*, October 11, 1877.)—The following conclusions are drawn from a paper upon the above subject, read by M. Leven before the Academy of Medicine, Paris:

1. Food does not seem to produce gas; that found in the digestive tube comes from the external air, the blood and the fæcal matters.

2. The gas formed during the course of flatulent dyspepsia is not due to the decomposition of food, but comes from the three abovementioned sources. It is continually kept in motion by the pathological contraction of the intestinal muscular fibre. Although continually expelled, it is constantly renewed. Its production may be incessant, as well in the fasting individual as in one well nourished.

3. This symptom, production of gas, therefore implies the existence of an intestinal irritation which is always consecutive to a stomachal dyspepsia of already long duration.

4. The course of the disease, and the treatment followed to obtain a cure, confirm these clinical observations.

5. There is no necessity of instituting a medication against the gas *per se*; moreover, the so-called absorbent powders, as charcoal, do not absorb the gas, as I have proved experimentally. Although block charcoal may possess this property, as soon as it is reduced to powder it loses it completely. E. A. C.

PURULENT PLEURITIS.—(*L'Union Medicale*, October 13, 1877). —M. Dieulafay lately read a communication before the "Société Medicale des Hôpitaux," concerning the histological examination of the pleural liquids for the determination of the origin of purulent pleuritis, from which we draw the following:

1. Simple punctures of the pleural sac have been accused of transforming a serous into a purulent liquid, and this transformation has been one of the most serious arguments against thoracentesis. There is here an error of interpretation.

2. Microscopical examination of acute pleural exudations discloses the fact that the liquid of every case of pleuritis, no matter how mild it may be, contains at least 600 to 800 red globules in each cubic millimetre; in other cases we find 1,500, 2,000, 5,000, etc. It is only when it contains at least 5,000 per cubic millimetre that the color of the liquid grows dark; up to that point it *appears* normal, although it is *histologically hemorrhagic*.

3. Those cases of pleuritis which, after first or second puncture, become purulent, are precisely those in which the first liquid contained a large number of red globules; so that the phase of suppuration would be preceded by one of congestion. Why should not there take place in pleuritis, what occurs in pneumonitis, in an abscess, and in fact, in every inflammation? The exaggerated formation of white globules (purulency), is preceded by a stage of accumulation of the red globules (congestion); but in the case of the pleura these globules fall, partly, into the liquid.

Of course there is no question here of pure hemorrhagic pleuritis, consecutive to cancer, injury, etc.; but only of those cases, simple in appearance, which contain an extraordinary number of red globules in their exudation, and which, from that moment, are bound to become purulent. Suppose that thoracentesis is performed in such a case in the two periods of its evolution, the purulency would be considered as the result of the first puncture, when, in fact, it was the natural consequence of the evolution of the purulent pleuritis. E. A. C.

MUMPS COMPLICATED BY VISUAL TROUBLES.—(*L'Union Medicale*, October 13, 1877.)—M. Hatry publishes a memoir containing ten observations of parotitis which occurred during the winter of '75 and '76, and which are remarkable, from the fact that they were attended with ocular complications which have not yet been described as existing in this affection. The patients complained ordinarily of not seeing distinctly—of having a fog constantly before them. These troubles usually correspond with the intensity of the parotid enlargement, and disappear with it. The author explains them by the compression of the vessels, which determines a greater or less congestion of the intra-cranial and intra-ocular cavities. From this it can be easily understood that cerebral symptoms may suddenly present themselves in patients suffering from these visual troubles. The ophthalmoscope reveals three degrees of alteration of the fundus.

1. Functional symptoms very slight; acuity of vision but little diminished; no palpebral injection; no bulbar conjunctivitis; papilla not injected; no peri-papillar infiltration; veins and arteries voluminous.

2. Visual acuity diminished; palpebral conjunctivitis; papilla hyperæmic; veins and arteries voluminous; small circle of peripapillar infiltration.

3. Papilla greatly injected; veins tortuous and turgid; arteries voluminous; veinous pulse; large circle of infiltration covering the papilla and the origin of the vessels; vision greatly diminished; distinction of color difficult; sensation of a cloud or smoke covering everything; photophobia, vertigo, etc.; palpebral and bulbar injection; superior palpebræ swollen. E. A. C.

CEREBRAL PATHOLOGY.—(*L'Union Medicale*, October 4, 1877.)—M. Luys reported the following two interesting cases to the "Société Médicale des Hopitaux," of Paris:

He presented first the brain of a woman forty years of age, who died in his wards, and who had been temporarily aphasic, but recovered the faculty of speech. The patient, at the age of thirty-two, had had an attack of right hemiplegia, with aphasia. From fifteen to eighteen months afterwards she regained the power of speech, and all the time that she was under observation she could give correct answers to all the questions put to her. She succumbed to a rapid bronchial paralysis, with pulmonary congestion.

At the autopsy a very notable diminution in volume of the left cerebral lobe was remarked. The third frontal convolution was completely destroyed, as well as the folds of the island. The striated body also appeared to be completely obliterated. The right lobe, on the contrary, was markedly increased in size, as was evident from the specimen presented, and this augmentation of volume was particularly in the frontal region, and moreover in the third frontal convolution.

From these facts, M. Luys is inclined to believe that in this case a true cerebral substitution took place, the influence of the right lobe substituting itself for the absent influence of the left. It is, in fact, probable to suppose that, if in the normal state the faculty of language is expressed by the action of the left lobe, at a given moment, a substitution can take place by the aid of the homologous regions of the right. The substitution of influence, indeed, appears admissible for the faculty of language, for if, in the normal state, the motility of our superior and inferior extremities is completely independent on opposite sides for each of these members, such is not the case for the motility of the muscular apparatus engaged in the phono-motric operations. Thus unilateral independence does not exist for the muscles of the larynx, pharynx and cheeks, but they are conjugate, and normally, in the emission of articulate sounds, they receive the major part of their excito-motor influence from a single cerebral lobe, which suffices alone for the bilateral innervation; we can thus understand how, in certain pathological cases, a region of motor innervation can substitute itself for a natural center which has been destroyed, and the phono-motric function continue by calling into action the nervous energy of a region normally silent. It is thus most likely that this woman, who formerly spoke by the aid of the left brain, could, after her attack, utter articulate sounds by the energy of the right. It was by this means that she was able to recuperate the faculty of language in a comparatively short time, after it had been lost for fifteen months, and to retain that power for eight years afterwards, or until her death.

The second specimen presented was the brain of a man who had suffered an amputation of the thigh many years before, and which showed a very evident atrophy localized in the second frontal convolution of the side opposite to the amputated limb. The patient was an old man, who had had an amputation of the thigh at the upper third, when twenty-five years of age. He had walked, for the remainder of his life, by means of an apparatus which took its support from the pelvis, without moving the femoral stump. The brain presented a very noticeable difference between the hemispheres, for the right lobe, the side opposed to the amputation, was considerably the smaller of the two. The atrophied center, corresponding probably to the psycho-motor center of the thigh, was represented by a depression, with a marked interruption of continuity of the right second frontal convolution. At this point there was a notable serous exudation, forming a small sub-meningeal serous lake. The other cortical regions presented no important difformity.

E. A. C.

Obstetrics.

The Treatment of Abortion.— *Med. and Surg. Reporter.* July 21, 1877.) Dr. Malins, of Birmingham, in speaking of this subject before a branch of the British Medical Association, said that the proportion of abortions to labors at the full period, observed in his practice, was as one to six or seven. Abortion, meaning by the term the premature expulsion of the ovum, might be, 1. Passive or latent; 2. Active or inevitable. 1. Passive.—The important symptoms were pain and hemorrhage. For the pain he would give full doses of opium, preferably in the form of liq. opii sedativus. For the hemorrhage in this form, rest was necessary. It having been repeatedly noticed that women who were sick aborted least, Dr. Malins, on this indication, had found the administration of vini ipecac, m. v., every hour for twelve or fourteen hours, a safe and simple remedy. 2. Active.—When there was great hemorrhage and pain, bold treatment must be followed, the vaginal or uterine plug being used, with ergotine hypodermically. He condemns the use of towels, handkerchiefs, sponge or strips of lint as plugs, but recommends that the vagina should be well and carefully packed with pledgets of tow or oakum. Where the embryo was dead and was retained for an indefinite time in utero, rapid dilatation of the os uteri by means of sponge-tents should be employed.

Fœtal and Maternal Mortality as Affected by a Frequent and Early Use of the Obstetrical Forceps.—Dr. A. L. Galabin (*London Obstetrical Journal*, December, 1877), from a careful consideration of various statistical tables, with reference to the relation of the fœtal and maternal death rate to the frequent and early use of the forceps, concludes: (1) It has not been shown that the majority or any considerable proportion of the still-births which now occur in Britain would be preventable by a more timely resort to forceps. (2) As to the advantage to fœtal life to be gained by frequent and early interference compared with a moderately low forceps rate, the evidence is somewhat contradictory. The statistics of Dr. Hamilton, of Falkirk, and Dr. Playfair, appear to show a possible gain of as much as 0.6 per cent, but they are open to the objection that the comparison is not made under parallel circumstances, and that the number of cases is too small to exclude the probability of larger casual variation. The results of Dr. G. Johnston, compared with those of Dr. Shekleton, appear to show a total gain of about 0.5 per cent, but of this a considerable proportion is accounted for by the substitution of forceps for craniotomy. On the other hand, the records of the maternity charities of London Hospitals, with forceps rates varying from 5.1 to 61.8 per 1,000, show no advantage to fœtal life from higher rates. (3) The results of the St. Thomas Charity show forceps rates up to 61-8 per 1,000 employed absolutely without any injurious effects to the mothers, so far as is proved by 2,913 deliveries. Mr. Godson's partner, in about 500 labors, obtained admirable results to the mothers, but no benefit to the children, with a forceps rate of something like 200 per 1,000. On the other hand, in the London charities, there is no positive evidence of any perceptible improvement to the maternal death rate from the higher forceps rates. And at Guy's, out of more than 38,000 deliveries, a forceps rate of only about 5 per 1,000 gave very good general results to the mothers, and an especially low death rate after difficult and protracted labors. (4) The results of Dr. Hamilton, of Falkirk, who practiced very early as well as frequent interference, and Dr. G. Johnston, who of late applied forceps in a fourth of the cases before full dilatation of the os uteri, do not prove any advantage thereby gained to the mothers, but, on the contrary, are consistent with the supposition that their risks were considerably increased. No statistics appear to have yet been published, showing any distinct gain to the children, combined with good results to the mothers, from a very frequent or early use of the instrument.

Pathology.

KIDNEY—ITS STRUCTURE IN SCARLATINA.—Dr. Klein (*Medical Times and Gazette, Vol. I,* 487, 1877), in a paper gives the results of a microscopical examination of the kidney, liver, spleen and lymphatic glands, from cases of scarlatina. In the kidneys he observed the following changes: During the first week there was an increase of the nuclei of the malpighian bodies, hyaline degeneration of the inner coat of the minute arteries, and of certain portions of the malpighian bodies, multiplication of the nuclei of the muscular coat of the small arteries, and finally the swelling, nuclear increase, and granular condition of the epithelial lining of the tubules. After the first week there is a cellular infiltration around the tubules, and the results of a parenchymatous nephritis. The hyaline change is the same as that described by Gull and Sutton. Alterations in other organs mentioned above resembled those of the kidney.

TETANUS AND HYDROPHOBIA. RECENT RESEARCHES INTO THEIR MORBID ANATOMY.—Dr. Joseph Coats (*British Medical*

Journal, December 15, 1877) presents some recent observations on the above subject. He found in the central nervous system in both diseases certain appearances suggestive of the existence of an irritant in the blood, which has acted on the vessels, and caused in the case of tetanus the exudation of a granular material, and in hydrophobia of leucocytes. These lesions being different in appearance, indicate that the irritating material which has produced them is different in kind. There is a remarkable similarity, however, in the distribution of the lesions in the nervous system in both diseases, the vessels of the medulla oblongata being most affected, those of the spinal cord next, and the centres above the medulla oblongata less than the cord.

In the parotid gland, the mucous glands of the larynx and the kidneys in two dogs which had been affected with rabies, there were distinct lesions attributable to the irritations of the blood-vessels, the lesion in the salivary glands closely resembling that in the nervous system. Turning to the pathology of these two diseases, the remarkable similarity in the distribution of the lesions in the central nervous system was taken to indicate that in both there is some morbid poison at work, and that this, by its action on the nerve centres, causes the symptoms. The special relation of the lesions to the vessels indicates that the irritating agent circulates in the blood. In hydrophobia, the irritating agent attacks other organs, but here also the blood-vessels are specially involved. In tetanus, observations are wanting as to the state of the internal organs, but it was supposed that evidence would probably be forthcoming of the existence of irritation in this disease.

Reference was also made to the similarity in the grouping of the nervous symptoms in these two diseases, and this was specially related to the similar distribution of the lesions in the cord and medulla oblongata. The symptoms are very different in kind, but both point to irritation of the cord and medulla oblongata, the predominant symptoms connected with the throat and neck in both diseases pointing back to the nuclei of origin of the hypoglossal, glosso-pharyngeal and spinal accessory nerves in the medulla oblongata.

Therapeutics.

THE ADMINISTRATION OF ALKALIES.—(*L'Union Medicale*, October 11, 1877.)—From a very interesting paper upon "New Researches Concerning the Action of Alkalies in the Animal Economy," read by Mr. Mialhe before the Academy of Medicine, Paris, we deduce these general considerations relative to the administration of these remedies. What object have we in view in giving an alkaline water containing bicarbonate of soda? It is to introduce into the blood a sufficient proportion of sodic bicarbonate to sensibly modify the ultimate composition of the albuminoid matter with which the alkaline element enters into combination, so that the phenomena of organic or vital oxidation may be rendered more active, as well as those of endosmosis and exosmosis, and that the nature of the secretions may be modified, etc.

What proportion of sodic bicarbonate is it necessary to introduce into the body to attain these results?

A categorical reply to this question is impossible, and for this reason: The proportion of alkaline base in the animal economy, in the state of the bicarbonate or albuminate, varies considerably, not only between the animals of the two great classes, the herbivora and the carnivora, but even between animals of the same class.

Thus, the liquids or humors in the herbivora are of a different alkaline strength from those of the carnivora, and thus it follows that man, who is omnivorous, should keep the mean in this regard, and approach the alkaline standard of the herbivora or the carnivora accordingly as his alimentation varies; this, in fact, takes place. Therefore the city man—the rich man—requires a larger dose of alkali to bring his system to a physiological standard than the peasant, who derives his food almost exclusively from the vegetable kingdom. This is a primary indication.

One should also take notice of the action of the skin, for a patient who perspires freely expends a portion of the acids of the body, and, in consequence, requires, to be properly alkalinized, a smaller dose of the alkaline base than others in the opposite condition.

Further, a patient living a large portion of the time out in the open air, and taking a great deal of muscular exercise, requires a smaller dose of bicarbonate than one who lives in inaction; finally, the temperature should be considered, because heat accelerates alkalization of the economy the same way as forced exercise, and also because it acts upon the nervous system to such a degree that patients do not bear this medication without great fatigue during the excessive heats of summer.

The maximum daily amount which we propose to give during the course of the treatment should be at once prescribed, divided into equal doses, and given during the twenty-four hours, so that the economy may be always maintained at the same degree of alkalinity. With test-paper and the urine of the patient, this can be easily regulated.

As our colleague, Claude Bernard, has lately said of sugar, I will say in my turn, and with the same conviction of the alkaline bicarbonates, that they constitute a constant and necessary element of the blood and of the entire economy. E. A. C.

Surgery.

INTRA-CAPSULAR FRACTURE OF NECK OF FEMUR.—Dr. H. Wardner of Cairo, Ill., reports, in the *Chicago Medical Journal*, a case of intra-capsular fracture of the neck of femur occurring in a lad between fourteen and fifteen years of age. One month after the accident which produced the fracture, the case fell into Dr. Wardner's hands, who made out the diagnosis for the first time. A splint made after the manner of Hodgen's Extension Apparatus, was applied, and kept on for fifty-five days. Then a plaster of Paris dressing was applied to prevent motion, which was removed on the seventy-second day, and crutches used. Five months after the accident he was able to walk without crutch or stick. The interesting features of the case are: "the age of the patient, the mode of treatment, and the result."

AMPUTATION OF THE PENIS.—TRANSPLANTATION OF THE URETHRA.—The ordinary method of amputating the penis is always followed by the great inconvenience that the patient cannot urinate in the erect posture without wetting his clothes. Prof. Thiersch has successfully overcome this difficulty by transplanting the remnants of the urethra into the perineum. In the case operated on, the whole organ, from the urethral orifice to the root was the seat of one large ulceration, surrounded by hard, raised and everted margins. The urethra was exposed to the extent of two centimeters; in the inguinal regions existed a number of hard, indolent, enlarged glands. The penis was amputated at its root. From the lower margin of the wound an incision was then carried along the scrotal raphé into the perineum, dividing the scrotal sac into halves. By deepening the incision the urethra was reached and dissected off its surroundings towards the bladder to the length of two centimeters. The urethra was then turned down to the perineum and fastened to it by stitching the mucous lining to the external integument. Catgut sutures were used to close the wound; drainage tubes were put into both angles of the wound; a flexible catheter was kept in the transplanted urethra, and salicylated dressing applied. Three months after the operation he was discharged from the hospital. He could then, by raising the scrotum, discharge the urine at an angle of 45 degrees, in the erect posture, without soiling his clothes or body. A re-examination of the urethra, made a year later, showed the condition of the transplanted urethra, and its satisfactory function still unchanged.—*Chicago Med. Jour. and Examiner.*

FAT EMBOLISM RESULTING FROM RUPTURE OF A FATTY LIVER.—Fat embolism is a pathological lesion which has been described within the past few years, more especially by Zenker, Wagner and Busch. The oil which escapes into the surrounding tissues from a fracture or an operation opening into the medullary cavity, becomes absorbed by the neighboring blood-vessels, and is carried to the right side of the heart, and subsequently to the lungs. There it gives rise to the most complete capillary embolism, entirely precluding the passage of the blood through the organ; the patient accordingly dying from gradual carbonic acid poisoning.

These cases of death in a few hours after a simple fracture of bone, or operation on bone were, up to the time that this important discovery was made, totally unaccounted for; the patient was generally said to have died from "shock." In the case here reported the oil which acted as embolon was derived from an unusual source. A sailor lad fell from aloft onto the ship's deck, alighting on his right side. Although stunned, he soon recovered sufficiently to walk about the deck. In an hour or two afterwards, however, he became very much distressed; his breathing became embarrassed, coma ensued, and he died a few hours after the injury. At *post-mortem* examination the liver was found to have sustained a few small ruptures, from which a little blood had flowed, but only a comparatively small quantity. The liver was *peculiarly* fatty, and, for a lad of his age, unusually so; whereas the other organs seemed perfectly normal. A section of the lung, previously hardened by chromic acid, and submitted to a staining re-agent of perosmic acid, showed, under the microscope, the most extraordinary appearance. The whole of the middle and smallest sized arteries were found to be plugged with oil which now had a black color, owing to the action of the perosmic acid. Even the smallest capillaries were completely choked up with oil.—*British Med. Journal.*

NEW METHOD OF OPENING LUMBAR ABSCESSES.—Mr. Osman Vincent described to the Harveian Society, a method by which he had opened eighteen lumbar abscesses without a fatal result. The abscess was first opened, and then injected with a solution of equal parts of sulphurous acid and water, after which a poultice was put on. Next day the injection was renewed and some tenax applied. The treatment went on till the cavity healed up. The injection sometimes gave pain; sometimes the fluid returned clear, and at other times black. When sulphurous acid was injected, it acted upon the pyogenic membrane, and then pus did not re-form.—*British Med. Jour., Dec. 1st, 1877.*

DEATHS FROM ANÆSTHETICS IN 1877.—We have recorded in our columns, during the present year, fourteen cases of deaths under anæsthetics. Ten of these deaths were from chloroform, one from ether and nitrous oxide gas, one from methylene and ether, one from nitrous-oxide gas, and one from ether and carbonic acid gas. The patient in the latter case (a man sixty-nine years of age, suffering from peritonitis), having for about thirty seconds inspired only his expired air.—*New York Medical Journal, Dec., 1877.*

DEATH FROM CHLOROFORM AVERTED BY THE INHALATION OF NITRITE OF AMYL.—*British Medical Journal* reports a case in which death from chloroform was averted by the timely inhalation of nitrite of amyl. About two drachms had been used, when the patient made an abortive attempt to vomit, raised her head from the pillow, gave a gasp, when the pulse stopped; foam gathered on her lips; her jaw became rigid, and to all appearance she was dead. Her tongue was pulled forward, artificial respiration was resorted to, cold water dashed in her face, but without success. Some nitrite of amyl was poured upon lint, and, as near as could be judged, in about ten seconds there was a flushing of the face, the pulse was again felt, and respiration was restored.

COMBINED USE OF CHLOROFORM AND MORPHIA.—Prof. Kõnig says he has combined the hypodermic administration of morphia and chloroform in a large number of cases, with very favorable results. It is seldom necessary to give more than ⅙, or at most, ¼ gr. The indications for the use of morphia during chloroform narcosis, are twofold. 1. Motor disturbances occurring before or during chloroform inhalation, unless these are very transitory. 2. Operations of such a nature that the chloroform narcosis cannot be maintained throughout, and especially towards the end, as in plastic operations on the face, and of the eye, etc. The object of using morphia is to induce analgesia over and above the chloroform narcosis, and also that this narcosis may not be pushed too far. Out of seven thousand cases in which he has used chloroform, none have died from it, and many of these took morphia also.—*Medical Times.*

INDICATIONS FOR TRACHEOTOMY IN SYPHILITIC LARYNGITIS.—Dr. V. Musson has given the indications for this operation in the above disease with great exactitude. The surgeon may be called upon to perform it on account of asphyxia from œdema of the glottis, gummy tumor or vegetations obliterating the air passages, abscesses, inflammatory swelling, or obstruction by loosened portions of necrosed cartilage. M. Trelat reports seventy-six recoveries in one hundred cases of tracheotomy in œdema of the glottis from syphilitic laryngitis.—*Medical Times.*

SUB-MUCOUS LIGATION OF HEMORRHOIDS.—Dr. Irwin, of Bay City, Mich., in the *Medical Record*, recommends the sub-mucous ligation of hemorrhoidal tumors as being much less painful than by ordinary method. He arms a straight needle, or one slightly curved at the point, with small, slightly-twisted waxed thread. Pass it through the mucous tissue near the base of the pile, and carry the needle around beneath the membrane, and out at the point of entrance. Tie sufficiently tight to arrest the circulation. If found advisable to carry the needle out through the membrane at one or more points, in making the circuit, care should be observed to enter again at point of exit. Should the tumor puff up, or become very dark after ligation, incise it a little with the scalpel, thus relieving the congestion. The tumor will shrink up and ligature come away without any trouble.

LOCALIZATION OF DISEASED ACTION OF THE ŒSOPHAGUS.—Dr. Harrison Allen (*Phil. Med. Times*), from a careful study of this subject, concludes: (1) Foreign bodies are liable to be retained at the beginning of the œsophagus, behind the cricoid cartilage. (2) Passing this point, they do not, as a rule, reach the cardiac end, or "lower part," but are apt to be lodged *just above* the left bronchus, as it crosses the œsophagus. (3) The cricoid region is exceedingly liable to invasion, and if the disease extends thence downward, it is often limited by the left bronchus. (4) It is probable that diseased action may occasionally originate at the point of greatest narrowing of the thoracic portion, viz., just below the superior thoracic aperture. (5) The region of the left bronchus is very frequently attacked, the disease commencing either behind or below it, and extending thence downward. (6) The cardiac end of the œsophagus is less frequently attacked than either the cricoid or bronchial portions. (7) Resistance at or near the left bronchus can be detected by a probang meeting resistance at eleven inches from the teeth. (8) The dangers attending the forcible use of the probang below the region of the cricoid become more manifest when the relations of the left bronchus are borne in mind.

FOREIGN BODY IN THE EAR.—DEATH FROM ATTEMPT TO EXTRACT IT.—The *British Med. Jour.*, Dec. 8th, 1877, reports the following case of suggestive interest. A child, 6 years old, was taken to an English surgeon for the purpose of having a foreign body removed from her ear. The surgeon, by means of a probe, assured himself that there was a "substance much like glass or bone, he could not say which," in the ear, and he, therefore, made an effort to extract this substance. He thought, after thirty minutes effort, that he had succeeded in partially getting it out, and he thought he had got the right thing, when he found it was only a small piece of bone. He afterwards got hold of something which he thought ought to come out. After operating for the removal of this supposed foreign body, the child having been nearly one hour and three-quarters in the consulting room, during which there had been considerable effusion of blood, the child fainted, never recovered consciousness, and died.

A *post-mortem* examination revealed a laceration of the lining membrane of the meatus, a laceration of the blood-vessel close to the external part of the bone of the skull, beyond the drum of the ear, and two or three minute portions of bone in the passage leading to the ear; a portion of the skull was broken. *No foreign body could be found in the ear.*

LOCALIZATION OF THE CORTICAL MOTOR-CENTERS AS A GUIDE TO THE USE OF THE TREPHINE.—M. Lucas-Championniere has worked up the new discoveries of the motor functions of the cortes cerebri, so as to be able to use the trephine with great certainty in cases in which the motor region has suffered injury. It must be remembered that the cortical centers occupy a space limited to the vault of the cranium, and that all the centers and all the convolutions which form them, are grouped about the fissure of Rolando, and immediately below the anterior half of the parietal bone. To find this fissure from the outside of the cranium, he gives the following directions (*London Lancet*):

This fissure commences, in man, fifty-three millimeters behind the bregma; fifty-five millimeters are to be measured behind it, and marked on the skull. Next, measure behind the external orbitar-process, a horizontal line seven centimeters long, and erect a line at right angles, to its extreme edge, three centimetres long, and a point thus found will correspond with the inferior extremity of the fissure of Rolando. If between these two points, thus formed, we mark off on the integument a straight line, we obtain the *line of Rolando*, and if a trephine be applied over this line, the fissure of Rolando is met invariably.

NEW METHOD OF DETERMINING THE REFRACTION OF THE EYE WITH THE OPHTHALMOSCOPE.—Schmidt Rimpler (*Berliner Klinische Woch.—Lond. Med. Record*, Oct., 1877), gives the following new method of determining the refraction of the eye: He uses the inverted image and determines its place by having a small object in front of the lamp, a series of bars on a star. When the shadow of this image and the fundus of the eye are seen distinctly at the same time, it is evident that they both lie at the same distance from the eye of the observer. As the distance of the shadow from the mirror of the ophthalmoscope is known, the refraction of the patient's eye is easily calculated by the following formula:

$$\frac{1}{F} = \frac{1}{B} + \frac{1}{A}$$

Where the F is the focus of the lens employed in producing the inverted image, B is the distance of this lens from the place of the image of the shadow, and A the distance of the real myopia, or the virtual hypermetropia. Neither the accommodation nor the refraction of the observer affects this method, which is entirely independent of the condition of his eye. The image of the flame of the lamp may be used instead of the shadow, except when great accuracy is required.

Physiology.

EFFECTS OF LIGATURE OF BOTH THORACIC DUCTS IN THE DOG.—Prof. Ludwig (*Brit. Med. Jour.*, Sept. 8, 1877) says that when both thoracic ducts are ligatured, and the dogs recovered, the following effects were observed: The receptaculum chyli burst; the chyle was extravasated into surrounding parts, and the lower quarters and legs of the dogs became quite puffy and to all appearance œdematous. But this swelling was caused by the chyle which found its way under the fasciæ of the muscles and gravitated towards the limbs, a fatty œdema being thus produced.

EFFECTS OF TRANSFUSION AS COMPARED WITH FEEDING WITH ALBUMINOUS BODIES.—Prof. Ludwig (*Brit. Med. Jour.*, September 8, 1877) gives experimental proof to show that if blood be transfused from one animal into the vessels of another animal of the same species, the latter animal after a few hours became very hungry and required food to sustain it, while if the fibrine obtained from the same amount of blood were given by the mouth the animal was properly nourished.

THE GROWTH OF CHILDREN.—(*Bost. Med. and Surg. Jour.*, August 15, 1877.)—Dr. H. P. Bowditch, after twenty-four thousand five hundred observations among the pupils of the public and several private schools of Boston and vicinity, published an interesting paper concerning the many important questions connected with the growth of children. The following conclusions seem to be justified by the data contained in the tables:

1. The growth of children takes place in such a way that until the age of eleven or twelve years boys are both taller and heavier than girls of the same age. At this period of life girls begin to grow very rapidly, and for the next two or three years surpass boys of the same age in both height and weight. Boys then acquire and retain a size superior to that of girls, who have now nearly completed their full growth.

2. Children of American-born parents are, in that community, taller and heavier than children of foreign-born parents, a superiority which seems to depend partly on the greater average comfort in which such children live and grow up, and partly upon differences of race or stock.

3. Pupils of American parentage at the public Latin School, private Latin School and Massachusetts Institute of Technology are (apparently for similar reasons) superior in height and weight to the generality of boys of American parentage attending the public schools.

4. Pupils of the same selected schools are also taller and heavier than English boys of the non-laboring classes attending public schools and universities, the superiority in weight being as a rule, more marked than that in height.

5. The relation of weight to height in growing children is such that at heights below fifty-eight inches, boys are heavier than girls in proportion to their station. At heights above fifty-eight inches the reverse is the case.

VISION PURPLE.—Dr. Gamgee (*Brit. Med. Jour.*, August, 1877) gives the following account of this new discovery: Among the recent physiological discoveries few are more startling than the color changes produced in the retina under the influence of light. Years ago Heinrich Miller showed that the rods of the frog's retina are of a red color, and he suggested that the color was derived from the blood coloring-matter. Afterwards, Leydig pointed out the fact that the retina of the frog presents to the naked eye a lively red satin gloss. Max Shultze makes the same observation respecting the retina of the owl and rat. Last November (1876) Professor Boll, of Rome, announced to the Berlin Academy, "that the external layer of the retina possesses in all living animals a purple color." He stated that the peculiar coloring matter is perpetually being destroyed by the light that penetrates the eye. Darkness, however, permits the restoration of the color. Death forever destroys it. Further, Boll believed that the red coloring of the fundus oculi does not depend upon the illumination of the choroidal vessels, but upon the proper color of the retina. Later he modified this statement, admitting both causes as combining to produce the red coloring of the fundus.

Stimulated by the suggestive nature of Boll's discovery, Professor Kühne, of Heidelberg, repeated the observations, and in so doing added a large number of facts to the discovery. His observations were upon the retinæ of frogs and rabbits. He kept the retinæ of the animals for some time in the dark, and examined them as soon as possible after death. He found the purple color to persist after death if the retina be kept from the light; that the bleaching took place so slowly by gas-light that by its aid the retina could be prepared and the changes in its tint deliberately watched; that when illuminated with monochromatic sodium light the purple does not disappear in from twenty-four to twenty-eight hours, even though decomposition have set in. Guided by these observations, Kühne carried on his preparations in a dark chamber illuminated by a sodium flame, and was able to discover the conditions necessary to the destruction of the vision purple, as well its renewal or restoration.

While the purple retina is kept in the dark, or is illuminated only by yellow rays, it may be dried on a glass plate without the tint changing. The color is not destroyed by strong solution of ammonia, by saturated solution of common salt, or by a saturation in glycerine for twenty-four hours. On the other hand, a temperature of 100° C. destroys the color, also alcohol, glacial acetic acid and strong solution of sodium hydrate. Kühne found that if he prepared eyes that had just been exposed to light, the retina exhibited a beautiful purple color. It was only when the eyes were exposed for a considerable time to the direct action of the sun's rays, that a fading of the purple color was perceived.

The following experiment throws some light upon the circumstances which retard decolorization and which restore the purple vision: Two recently extirpated eyes of a frog were taken; from one the retina was removed, whilst an equatorial section was made through the other eye so as to expose the retina and still leave it *in situ.* Both preparations were exposed to diffuse daylight until the isolated retina had lost its purple color. On now taking the other preparation into the yellow chamber and removing the retina, Kühne found that its color yet remained; it was *dark red,* but was bleached when exposed in its naked condition to daylight.

Further, Kühne found that as long as the retinal epithelium is alive it possesses the power of restoring the faded vision purple.

If an equatorial section be made through a recently extirpated eye, and a flap of the retina be lifted up from the underlying choroid to which the retinal epithelium adheres, and exposed to light, the purple color of the flap will be destroyed, whilst the color of the rest of the retina persists. If, however, the bleached portion of the flap be carefully replaced, so that it is again in contact with the inner surface of the choroid, complete restoration of the vision purple occurs. This restoration is a function of the living choroid, or rather of the living retinal epithelium which adheres to it; and it is independent of the black pigment which the normal retina contains. As it is absolutely dependent upon the life of the structures which overlie the layers of rods and cones, it is natural that it should be observed to occur for a longer time after death in the frog than in the rabbit.

Are there bleached spots on the retina corresponding to the images of external objects? After many failures Kühne devised the following experiment in answer to this inquiry: He took a rabbit and fixed its head and one of its eyeballs at a distance of a *meter* and a half from an opening thirty meters square in a window shutter. The head was covered for five minutes by a black cloth, and then exposed for three minutes to a somewhat cloudy mid-day sky. The animal was then instantly decapitated; the eyeball which had been exposed was rapidly extirpated by the aid of yellow light, then opened and instantly plunged into a five per cent solution of alum. Two minutes after death the second eyeball, without removal from the head, was subjected to exactly the same processes as the first, viz., to a similar exposure to the same object, then extirpation, etc. On the following morning the milk-white and now toughened retinæ of both eyes were carefully isolated, separated from the optic nerve and turned. They then exhibited on a beautiful rose-red ground a nearly square, sharp image with sharply defined edges. The image on the first eye was somewhat roseate in hue and less sharply defined than in the second, which was perfectly white. The size of the images was somewhat greater than one square millimeter.

What are the chemical characters of the vision purple? From the living retina the vision purple may be extracted by a colorless solution of crystalized bile. It is then of a beautiful purple color which is destroyed by light. The purple of dead retinæ cannot be extracted by such a solution; it has become insoluble.

These facts teach us that the living retina contains a substance which under the influence of light undergoes changes which vary in intensity, according to the intensity and character of the luminous rays. Further, we see that the internal epithelium is to be looked upon as a purple generating gland. Again, we can realize how light probably acts, by inducing a chemical decomposition of matters connected with these end organs.

Pharmacy.

SYRUP OF ORANGE PEEL.—A. Martin, in *Journ. Pharm. d'Anvers*, recommends the following process: The peel, preferably of the Curaçao orange, is dried by leaving it eight days in a desiccator, consisting of a tinned iron vessel, containing an open bottle half filled with quick-lime, the cover secured by a luting of flour paste. It is then easily powdered; the powder is exhausted by percolation with cold water; the infusion heated to 158° F. (70° C.) to coagulate the albumen; filtered, and converted into syrup in the usual manner.

SOPHORA SPECIOSA—A NEW NARCOTIC.—At the pharmaceutical meeting in Philadelphia, November 19th, Mr. Bullock exhibited some of the seeds of a leguminous shrub, indigenous along the Mexican border, known to botanists as Sophora speciosa. The seeds have been recently analyzed by Professor H. C. Wood, who finds in them a new alkaloid, for which he proposes the name sophoria. The seeds are of an irregular oval form, about eight lines in length by six in breadth, varying in color from a pale to a dark red. A horny testa, one-half line in thickness, incloses the white, oily kernel, which has a slightly bitter taste. It is said that one-half of a seed produces first a delicious exhilaration, followed by a sleep lasting one or two days, while a whole seed is sufficient to kill a man. The active principle is thought to reside in the testa, but further experiments are necessary to determine this and other interesting questions that suggest themselves, and a more complete report was promised as soon as a further supply of the seeds could be obtained.

THE TENTH DILUTION.—A conscientious pharmacist, receiving a prescription from a homeopathic physician in Vienna, for belladonna, tenth dilution, dispensed distilled water; but the medicine was sent back with a request to dilute it yet more, as it was still too powerful.—*Pharm. Centralhalle—Am. Journ. Pharmacy.*

BATTERY FLUID FOR ZINC-CARBON GALVANO-CAUSTIC BATTERY.—Mix eighty fluid ounces of sulphuric acid with ten pints of water; pour the mixture upon four pounds avoirdupois of potassium bichromate, and stir well for five minutes; then add twenty pints more of water. Finally, when cold, add thirty fluid ounces of sulphuric acid. When it is desired to increase the intensity of the action, a small quantity of a solution of ammonium nitrate in nitric acid may be added to each cup of the battery.

ANTI-ASTHMATIC CIGARETTES.—Equal parts of belladonna, stramonium, digitalis and sage leaves are made into a decoction with two hundred parts of water. Eight parts of tinct. benzoin and fifteen parts of nitre are then added, and bibulous paper is soaked in the mixture twenty-four hours and then dried. The paper is to be cut into slips three and one-quarter inches long by two and one-half inches wide, which are to be rolled into cigarettes.—*Journ. de Pharm. et de Chem.—Pharmacist.*

NOTE ON THE DISPENSING OF MONOBROMATED CAMPHOR.—The insolubility of this compound in water renders it difficult to prepare a satisfactory mixture with aqueous vehicles. Le Page suggests (*Druggists' Circular*, December, 1877) that it be dissolved in almond oil, and exhibited in the form of an emulsion. A solution of monobromated camphor in six times its weight of almond oil may be readily obtained by the aid of a gentle heat, and may be kept on hand for dispensing. To emulsify seven drachms of the oily solution, containing one drachm of the camphor compound, the author employs three drachms of powdered gum acacia suspended in double its weight of water. The emulsion may be afterwards diluted with syrup or water as desired.

PREPARATION OF DIALYZED IRON.—The first step in the process is the preparation of a tolerably concentrated solution fully saturated with ferric hydrate and containing a minimum amount of acid. One method of accomplishing this, consists in adding aqua ammoniæ sp. gr. .960 to a solution of ferric chloride (liquor ferri chloridi, U. S. P.) so long as the precipitate formed is re-dissolved. It is best to dilute the ferric solution to a sp. gr. of 1.3 before adding the ammonia. One volume of water should be added to five volumes of the officinal preparation. A second method of preparing the solution for dialysis consists in adding to the solution of ferric chloride a sufficient quantity of freshly precipitated and thoroughly washed ferric hydrate to completely saturate it. The solution, prepared by either method, is subjected to dialysis in the usual manner. A convenient substitute for the dialyzer consists of a pig's bladder, which is filled with the solution, securely tied, and immersed in water, which is to be frequently changed.—*E. B. Shuttleworth, Canadian Pharmaceutical Journal.*

A SOLUTION OF PHOSPHORUS FOR MEDICINAL USE.—Mr. Urwick, in a paper read before the British Pharmaceutical Conference, gives the following interesting results reached in the effort to secure a preparation of phosphorus definite in strength and not liable to change. He finds a solution of phosphorus prepared as follows to meet these requirements perfectly: Two grains of phosphorus are dissolved in a mixture of absolute alcohol (one and one-half ounces) and glycerine (quantity not stated), with the addition of cane sugar (one-half ounce) and milk sugar (one-quarter ounce), to prevent the phosphorus from becoming oxidized during solution. When the solution is cold, the white of one egg, previously mixed with glycerine, is added, making up the measure of the whole (with glycerine) to ten ounces. Such a solution is quite permanent, showing no tendency to become acid or to deposit amorphous phosphorus, even after two years' trial. On adding a little oil of neroli to the solution, it lost at once its garlic-like taste and smell, as well as its characteristic luminosity, although the phosphorus seemed still to remain unchanged. Tincture of orange, tincture of gentian, and oil of cloves produced a similar effect. Essence of lemon destroyed the phosphorescence, but not the taste and smell of the solution, and the same was true of milk.

SIMPLE TESTS FOR FLOUR ADULTERATIONS.—Dr. Himly's ready method of estimating the amount of earthy impurities in flour, consists in simply putting into a test tube a teaspoonful of flour, and pouring in chloroform enough to form a column three inches in height. The mixture is well shaken, and then set aside until its constituents have assumed the place assigned them by their relative specific gravity. The flour being lighter than chloroform rises to the surface. Any mineral impurities it may contain, such as chalk, gypsum, marble dust, barytes, etc., will fall to the bottom. By weighing the flour used in the experiment, and the sediment that thus falls, the amount of mineral aduleration will be easily ascertained.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

In assuming the co-editorship of this journal, an unexpected honor conferred upon me by the Medical and Library Association and Messrs. E. B. Smith & Co., the proprietors, I do so with grave doubts as to my abilities to fill the important trust conferred upon me to the satisfaction of all concerned.

Yet, believing with my confrere, Dr. Connor, that the profession of this State want, need and will support a journal which will be entirely free from partisanship; which will consider no matter worthy of its pages which does not advance the interests of the profession; which will be no mouth-piece to any one institution, society or clique, and which depends upon none for financial or other support, I am encouraged to devote what talent I may possess to the work.

A broad, liberal, expansive, original and independent journal is our aim, devoted to the interests of rational medicine, but in particular to the interests of the practitioners of medicine throughout this State. To this end our energies will be devoted. We have no object in taking hold of the work but the good of the profession, and to its members we look for the support and appreciation our enterprise merits. This accorded, with the liberal terms our publishers hold out to us, the fault will be ours if we fail to make the "DETROIT LANCET" one of the best journals in the West.

HENRY A. CLELAND.

Coroners and Coroners' Juries.

Governor Croswell's strictures on Coroner P. Oakes, in his decision denying the petition of Dr. Geo. P. Foster, a homeopath of this city, for his removal of the coroner from office for official misconduct, and the general animadversions he makes on the functions of coroners, merit the commendation of every citizen, and we trust may lead our law-makers to an examination of the whole subject, with a view of abolishing the office, as has been done in Massachusetts.

The following, taken from the *Free Press*, Dec. 14th, is a partial copy of the text of the Governor's paper on the case in question:

"While the Governor is disposed to give the coroner, in this case, the full benefit of all reasonable doubt, and dismisses the complaint as insufficient to warrant so severe a penalty as removal from office, a just sense of regard for the public welfare obliges him to say that the evidence shows that the functions of this officer seem to have been most loosely and inconsiderately performed. The careless manner of summoning and swearing the jury, and of inspecting the dead body, the failure to swear the witnesses, and allowing them unsworn to enter into a wrangling discussion of the case in the presence of the jury, and finally the coroner going himself with the jury to a private room, and virtually dictating to them the verdict they should render, were all irregularities which deserve censure. The functions of a coroner partake of a judicial nature, and his proceedings in such cases should be conducted with strict regard to law, and with the dignity and character of a judicial investigation. He is made the agent of the public for the purpose of gathering information and submitting it to a jury impaneled by himself to determine the cause of sudden, violent or extraordinary death. For such a purpose he should summon jurors of fair intelligence, in whose judgment and decision the community may place some reliance. Witnesses familiar with the circumstances of the death, as well as medical experts capable of judging as to its cause, should be carefully examined under oath, and their evidence, in important cases, taken down and submitted to the jury. The latter are then by themselves to deliberate and determine upon the cause of death, without the presence, dictation or interference of the coroner. He should not even go into the room with them and listen to their deliberations, and the officer who does so mistakes his duty and is guilty at least of great impropriety.

"It is to be regretted that so frequently little regard is paid to the express requirements of law in the conduct of inquests. A preliminary examination of this character should certainly be performed with deliberation and precision. Public justice as well as individual rights demand it. An inquest so conducted as not to fully bring out the truth, may be the means of enabling guilty parties to escape, and by a misrepresentation of facts may tarnish reputation and cast unjust suspicion and reproach on innocent persons.

"It is to be hoped that this investigation may be productive of good in securing hereafter, in proceedings of this nature, more fidelity to the provisions of law and the demands of justice."

These strictures and remarks might well apply, with few exceptions, to every case of coroner's inquest I have ever attended. And now let me ask, in the nature of the case, can it be otherwise? The coroner, too often, is but an ignorant man, elected to the office by the suffrage of his fellow-countrymen, and utterly devoid of any qualification which would fit him for the office. The jurymen, frequently the personal friends of the coroner, whom, time and circumstances permitting, he invariably assembles as his jury, for the sake of the fee which will come to them, and who are, usually, equally as unable, unless prompted, to arrive at any definite conclusion of the case in hand, or to formulate their verdict if they succeed, without outside help, in arriving at one. The physician, when the special knowledge of such is deemed necessary to make an inquest, is not seldom an ignoramus, who mistakes the colon for the bladder; speaks of the liver as a consolidated lung, and considers the heart diseased, because he finds its pericardium adherent to the diaphragm.

Is it to be wondered at that coroners are laughed at, or that the verdicts of their juries so often find their way into the funny columes of our newspapers? And yet in the hands of such men are left the issues of life and death.

The Governor says, "The functions of a coroner partake of a judicial nature, and his proceedings should be conducted with strict regard to law, and with the dignity and character of a judicial investigation." But what does Mr. —— know of "the dignity or character of a judicial investigation?" He has kept saloon for twenty years, and his time has been so devoted to business that reading and writing are now almost as the lost arts to him,—judicial investigations to him, of course, are out of the question. He was elected by his friends to the office of coroner, not because of the dignity and character with which he could conduct a judicial investigation, but because his health was failing from the close confinement in his saloon, and it was necessary to provide him with some light employment, out of doors, whereby he could live. His chief ambition is not so much to fulfill the requirements of law as to be first coroner on the ground, so that he can make the investigation and claim the fee.

The fact is, the coroner is a relic of a by-gone age. His day of usefulness is over. One by one the functions of his office have become obsolete, and now this venerable relic, which has outlived his time, is on the brink of an oblivion from which we hope he will never be resuscitated. Massachusetts has already perceived this. Coroners in that State have become extinct, and with an extract from the Philadelphia *Weekly Times*, Oct. 6th, 1877, describing the Massachusetts plan, I take leave of the subject.

"The Massachusetts plan simply separates the duties of a coroner and assigns them to persons properly qualified. The Governor appoints a medical examiner in each county, a reputable physician, whose duty it is to make the necessary examination of dead bodies. If death is found to have occurred from natural causes, the fact is reported to the Health Officer or County Commissioner, but if there is evidence of violence the examiner makes his report to the nearest magistrate, who is thereupon charged with the legal inquiry into the case. This dispenses with the coroner altogether, and not only saves a considerable item of expense, but insures an intelligent performance of the duties now assigned to him, by competent persons specially qualified. The abolition of the coroner's jury is more important than that of the coroner himself, but it has never been shown that a coroner's jury was of any use, and if a magistrate can conduct the preliminary hearing in every sort of criminal case without a jury, there is no apparent reason why he should not do so in a coroner's case.

"Certainly the reform is an interesting one, if not also promising, and it is not strange that it has attracted attention in New York and in Philadelphia. Here we could not get rid of the office by a mere act, since it is protected by the Constitution as well as by immemorial use, and we have not Massachussetts' advantage of a local magistracy learned in the law and fit to be entrusted with large judicial and inquisitorial powers. On the other hand, we have such provocation to abolish the coroner as Massachusetts never knew, and people who are working out schemes of reform will do well to take this one into consideration."

H. A. C.

Dissemination of Infectious Diseases.

In the *Sanitary Record*, Nov. 16th, there is a report of five cases of infectious diseases disseminated by pawnbrokers, which should furnish food for reflection to our Boards of Health.

In the first case, a woman pawned the garments of a sister who had died of small-pox; an outbreak of the disease took place in the village where they lived, which led to three deaths.

A servant pawned a garment, which she afterwards redeemed. Soon afterwards, the mother and child of the family in which she served, were stricken with small-pox and died.

A nurse, who had taken care of a family smitten with small-pox, pawned divers articles of clothing belonging to the family. The disease broke out in another family doing business with the same pawnbroker, which entailed the death of the husband.

A gentleman in depressed circumstances, who lived in an isolated neighborhood, where no scarlet fever prevailed, pawned his overcoat in a locality where it was raging. After he had redeemed it, "his children were smitten with scarlet fever in a very virulent form."

Two persons redeemed some underclothing at an establishment situated in a locality where scarlet fever was prevailing. Both persons were seized with it soon afterwards, though they lived some distance from each other and from the infected locality.

These cases are pregnant with grave warning, and indicate a source of danger to the community, when infectious diseases are prevalent, which is not thought of.

They also point to the necessity of health officers exercising vigilantly the powers which may be vested in them of destruction or thorough disinfection of clothing in infected households. In our own city there is room for improvement in this direction. Scarlet fever and diphtheria are again becoming quite prevalent, and if any city ordinance exists relative to protecting the people from infection from these diseases, it is certainly not enforced.

Regarding the preventive measures best to be adopted in such cases, I am not now prepared to pronounce. Yet it would be a step in the right direction, as keeping the health authorities in possession of the extent to which these infectious diseases prevail, if the State law, as formulated in sections 1734 and 1735, Compiled Laws of 1871, were enforced.

The sections referred to are as follows:

(1734.) SEC. 43. Whenever any householder shall know that any person within his family is taken sick with the small-pox, *or* *any other disease dangerous to the public health,* he shall immediately give notice thereof to the Board of Health, or to the health officer of the township in which he resides; and if he shall refuse or neglect to give such notice, he shall forfeit a sum not exceeding one hundred dollars.

(1735.) SEC. 44. Whenever any physician shall know that any person whom he is called to visit is infected with the small-pox, *or any other disease dangerous to the public health,* such physician shall immediately give notice thereof to the Board of Health or health officer of the township in which such diseased person may be; and every physician who shall refuse or neglect to give such notice, shall forfeit, for each offense, a sum not less than fifty nor more than one hundred dollars.

H. A. C.

Memoranda.

Little Rock, Arkansas, is to give birth to the *Arkansas Medical Record,* about the middle of January, 1878. Dr. J. T. Hall is to superintend its delivery and future development.

The new Hotel Dieu is said to contain four hundred beds, and to have cost forty millions of francs.

The *Philadelphia Druggist and Chemist* is the name of a new journal to be started in Philadelphia by C. C. Vanderbeck. It will be devoted to materia medica, pharmacy, chemistry, therapeutics and the collateral sciences.

An epidemic of trichinosis which lately broke out in Leipsic, has attained unusual dimensions.

Dr. Edward H. Clarke died at his home in Boston, Mass., November 30th, from cancer of the rectum. As a practitioner and a lecturer, he won more than ordinary success. His essay on "Sex in Education," and a paper on the "Bromides," written in conjunction with Dr. Armory, are the most notable of contributions to medical literature.

For more than a century the English government has been forcing the sale of opium upon the Chinese. Two wars (one in 1839 and one in 1857) have grown out of the resistance of the Chinese government to this mercenary rapacity of the English. In 1876 over seven millions of pounds of opium were imported from India into China. It is estimated that no less than six millions of people both chew and smoke this drug constantly.

In a late pamphlet, Dr. W. G. Stevenson presents the view that "criminals as a class are marked by some form or other of bodily and nervous degeneration, which re-acts upon and enervates the moral sense and renders the commission of crime not only natural but necessary, unless the victims of such neurotic taint are environed by powerfully resisting and restraining influences."

A great school of pharmacy is being constructed in a portion of the grounds attached to the Luxembourg, at Paris. It will occupy a space of seventeen hundred square yards, and the laboratories will accommodate six hundred working students. It will open in 1880.

A writer (*Boston Medical Journal*, November 22, 1877) states that the former system of instruction at the Medical Department of the University of Pennsylvania, gave a total of one thousand six hundred and eighty lectures prior to graduation at a cost of three hundred and fifteen dollars, while the present system gives eight hundred lectures at a cost of four hundred and fifty-five dollars.

J. Auanoff has obtained an organic derivative of phosphorus, termed *methyldiethylphosphoniumphenylocidehydrate.*

The Medical College of the Pacific graduated, November, 1877, a class of thirteen. The Medical Department of the University of California graduated at the same time a class of fifteen.

Ingluvin, prepared from fowls' gizzards, is the latest remedy for the vomiting of pregnancy. Dr. Charles G. Frowert, in the *N. Y. Medical Record*, recommends that prepared by Wm. R. Warner.

The true foundation of all medicine lies in the study of physiology. (Barnes.)

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

A GUIDE TO THERAPEUTICS AND MATERIA MEDICA. By Robt. Farquharson, M. D. Enlarged and adapted to the U. S. Pharmacopœia, by Frank Woodbury, M. D. Cloth; pp. 410. Philadelphia: Henry C. Lea. 1877.

This little volume is an earnest effort to advance the interests of intelligent therapeutics. In a moderate compass we find the established facts concerning the physiological and therapeutical action of remedies.

The corresponding effects of different remedies, in health and disease, are presented in parallel columns. This arrangement impresses us very favorably as both convenient and calculated to stamp the facts upon the memory. Botanical and pharmaceutical details are necessarily, and, we think, advantageously, omitted.

The work is introduced by a recital of the general rules for prescribing. Among these we find that the author has emphasized the method of prescribing for children. He says that while the ordinary rules laid down for regulating the doses to children may do well in some cases, in others they will cause serious disappointment. Thus children can, with advantage, take free doses of belladonna. He has given M. x. (British Pharmacopœia) to children six months old; to children of ten years ʒij, with good effect. Arsenic, prussic acid, strychnia and tinct. ferri, are all well borne in larger doses than those laid down by our usual rules.

The American editor directs attention to Prof. Clarke's method of graduating doses—a method based upon the weight of the subject.

Section first is devoted to general remarks on certain classes of remedies—as acids, diuretics, expectorants, purgatives, etc., etc. It is a very instructive lesson, and so arranged as to impress its full force upon the student.

Section second treats briefly of the remedies comprised in the primary list of the United States pharmacopœia and their preparations. This section, of course, includes the great body of the work, and with reference to it we have but one remark to make, viz.: We do not know of an equal number of pages in one work that contains for the needs of the student anything near so valuable an account of these substances.

The last section treats in a similar manner of remedies in frequent use, but not included in the primary list of the materia medica of the U. S. P.

Lastly, we have an index of diseases and a general index. We can cordially commend this book to the medical student as the best introduction to the study of larger and more elaborate treatises.

MODERN MEDICAL THERAPEUTICS. A Compendium of Recent Formulæ and Specific Therapeutical Directions, from the Practice of Eminent Contemporary Physicians, American and Foreign. By George H. Napheys, A. M., M. D. Fifth edition. Enlarged and revised. Cloth; pp. 600. Philadelphia: D. G. Brinton. Price, $4.00. 1878.

For many years this has been a popular work in the profession. Its practical character commended it to the hard worked, the indolent, and indifferently taught.

In the edition before us there are marked changes. First, the former book has been divided into the present volume and one of equal size on surgical therapeutics. This division was necessitated by the mass of material before the author claiming a place in his book.

In view of the author's claim, that he has aimed "not at a mere collection of prescriptions, but at a systematic analysis of all current and approved means of combating disease," we have carefully examined his work, and find that he has attained his aim with more than usual success. Rightly used, such a work has a great and positive value to every practitioner. We find here the name and work of every man who has contributed aught to the advancement of the art of medicine. It is surely no mean privilege to the young practitioner to be able to refer to the practical advice of all the celebrated therapeutists of the age.

MODERN SURGICAL THERAPEUTICS. A Compendium of Current Formulæ, Approved Dressings and Specific Methods for the Treatment of Surgical Diseases and Injuries. By Geo. A. Napheys, A. M., M. D. Revised to the most recent date. Cloth; pp. 600. Philadelphia: D. G. Brinton. Price, $4.00. 1878.

The medical aspects of surgery are set forth in this work. The formulæ of distinguished surgeons, their therapeutical directions, and their specific treatment of surgical diseases and injuries are here systematized in their appropriate relations. It is really an amplification of the author's "Modern Therapeutics," and in this sense a companion to the author's "Modern Medical Therapeutics." Every page bears abundant evidence of the thoroughness with which the author has performed his task.

To the busy practitioner it will prove a very God-send, and to all a great convenience. It has three indices—one of names of authors, one of remedies, and one of diseases—which facilitate a ready reference to its pages.

AN ELEMENTARY TREATISE ON PRACTICAL CHEMISTRY AND QUALITATIVE INORGANIC ANALYSIS. Specially adapted for use in the Laboratories of Schools and Colleges, and by beginners. By Frank Clowes, D. Sc., London, with illustrations. Second edition. Cloth; pp. 372. Philadelphia: Henry C. Lea. 1877.

The opening section of this book treats of the experimental methods of preparing gases and studying their properties. Next we find a carefully arranged account of the apparatus required for chemical analysis, and the modes of preparing it. Various analytical operations are now described and illustrated by experiments.

Section four treats of analytical reactions. After some introductory remarks respecting classification and directions for making proper notes of work in the note book, the reactions of the different metals are given in sufficient detail. Then follows the reactions of the acid radicles.

Section six describes a full analytical course, and gives the needful tables.

The last section gives a list of the chemicals and apparatus required for the preceding course.

On the whole, it seems to us that the author has admirably succeeded in his efforts to meet the wants of students in practical chemistry.

A Compend of Diagnosis in Pathological Anatomy, with Directions for Making Post-Mortem Examinations. By Dr. Johannes Orth. Translated by Drs. F. C. Shattuck, G. K. Sabine and R. H. Fitz, with numerous additions from me, prepared by the author. Cloth; pp. 440. New York: Hurd & Houghton. Price, $3.50. 1878.

This work is intended to fill the place formerly occupied by Dr. Francis Delafield's Manual of Post Mortem Examinations.

Since the issue of the latter, certain familiar appearances have received a new interpretation, various improvements in methods have been made, and numerous technical terms have been employed which are not sufficiently explained elsewhere. Further, the work is fuller in necessary details than that of Delafield. After a careful examination, we cordially recommend it, in every respect, as the best on this subject in the English language. A careful study of it by medical students and practitioners would greatly diminish our errors in diagnosis. The publishers have issued it in the usual elegant style of the Riverside Press.

Principles of Theoretical Chemistry, with Special Reference to the Constitution of Chemical Compounds. By Ira Remsen, M. D., Ph. D. Cloth; pp. 231. Philadelphia: Henry C. Lea. 1877.

Upon what basis do our conceptions of the chemical constitution of different substances rest? This is a question whose answer must necessarily be largely speculative. At least, it brings us into the realm of hypothetical units, and of a complicated superstructure of pure reasoning. Minds mathematically constituted will grasp this volume with avidity, as its sole purpose is to unfold this part of chemistry.

Doctors do not generally relish the profundities of this science, as unfolded in modern times. Its requirements are too exacting, and its rewards to the practical man too meagre to excite any genuine enthusiasm among the masses. To such as desire to fathom the mysteries of chemistry in an intelligent manner, this work presents peculiar attractions.

OUTLINES OF MODERN ORGANIC CHEMISTRY. By C. Gilbert Wheeler, Prof. of Chemistry in the University of Chicago. Cloth; pp. 231. Chicago: Jansen, McClurg & Co. 1877.

This is an excellent introduction to the study of a very intricate and imperfectly understood subject. The advances made during the past years have served to clear up many obscurities, and to indicate the methods by which still greater progress may be made. In so far as practicable, these advances and improved methods have been fairly noted.

A TREATISE ON GONORRHŒA. By Silas Durkee, M. D. Sixth edition, with eight colored illustrations. Cloth; pp. 467. Philadelphia: Lindsay & Blakiston. 1877.

This work had a good reputation some fifteen years ago, but we see no evidence that the subject matter has been at all recast for the present edition. It cannot now be said that it at all represents the prevailing views upon the various subjects discussed. We were surprised that any author should put forth a new edition in which the only new thing was a change of dates on the title page.

THE SCIENTIFIC BASIS OF DELUSIONS. By George M. Beard, A. M., M. D. New York: G. P. Putnam's Sons. Paper; pp. 47. 1877.

In this essay the author states and defends his new theory of trance, viz.: Trance is a functional disease of the nervous system, in which the cerebral activity is concentrated in some limited region of the brain, with suspension of the activity of the rest of the brain, and consequent loss of volition. All interested in the subject will find this essay worthy of their careful attention.

THE PHYSICIANS' SELF-COPYING PRESCRIPTION BOOK AND BLANKS. By Wendell A. Anderson, M. D., La Crosse, Wisconsin. Price, 35 cents.

This is the only self-copying prescription book that we have ever seen. It is admirably adapted for its purpose, and removes the last objection to the preservation of copies of all prescriptions. On the back of the copy is a space for noting the name and history of the patient, or any other items which it may be desirable to place on record.

TRANSACTIONS OF THE KENTUCKY STATE MEDICAL SOCIETY. Cloth; pp. 216. 1877.

Besides the usual minutes of the meeting, and the president's address, we have in regular order the following articles, viz.: Anæsthetics in Parturition, by L. P. Yandell, M. D.; Chole-Lithiasis, by Dr. John A. Octerlong; Report on Vital Statistics, by D. N. Porter; Report on Epidemics, by L. S. McMurtry; Sterility and its Treatment, by W. H. Wathen; Report on Materia Medica, by L. P. Yandell, Jr.; Pathology and Treatment of Sprains, by R. O. Cowling; Report on Dermatology, by L. P. Yandell, Jr.; Infant Therapeutics, by J. A. Larrabee; Criticism of Dr. Ely McClellan's article on Cholera, by Dr. W. Talbot Owen; A Peculiar Case of Peri-Uterine Cellulitis, reported by J. Hale; Report on the U. S. Marine Hospital Service, by Thos. J. Griffiths; Physiological Therapeutics in Fever, by John L. Cook; Deafness and some of its Causes, by M. F. Coomes; Physiological and Pathological Changes in the Blood Corpuscles, by Frank C. Wilson; Occipito-Posterior Positions, by R. F. Logan; Glaucoma, caused by Anterior Synechia, by W. B. Meany; Irido-Cyclitis, by D. S. Reynolds.

TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF ARKANSAS. Paper; pp. 52. 1877.

THIRTY-FOURTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N. Y., FOR 1876. Paper; pp. 83.

This report exhibits a degree of prosperity creditable to the State and the professional managers of the institution.

THE AMERICAN MEDICAL ASSOCIATION AND THE UNITED STATES PHARMACOPŒIA.

Reprint of the pamphlets of Dr. H. C. Wood, Mr. Alfred B. Taylor, the Philadelphia County Medical Society, and the National College of Pharmacy, with a rejoinder addressed to the Professions of Medicine and Pharmacy of the United States, by Edward R. Squibb, M. D., Brooklyn, N. Y. Paper; pp. 157.

Dr. Squibb deserves the hearty thanks of every member of both the Medical and Pharmaceutical professions, for the labor, time, and money expended in their behalf, with reference to the reorganization of the U. S. Pharmacopœia.

PROCEEDINGS OF THE GEORGIA PHARMACEUTICAL ASSOCIATION, at the second annual meeting, held at Atlanta, Ga., April, '77. Paper; pp. 87.

In addition to a few addresses and papers, it contains the constitution, by-laws, and roll of members of the association.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA. Paper; pp. 198. Atlanta, Ga. 1877.

This volume contains twenty-four articles, mainly composed of reports of more or less rare and interesting cases. Hence it has a positive value.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA, A State Board of Health. Paper; pp. 188. 1877.

From the above heading it will be observed that the functions of this society are multiplied greatly above those of ordinary State societies. In the volume before us we find a copy of the legal status of the society. The papers are far below the average in both number and quality.

REPORTS OF THE SANITARY COMMISSION OF THE CITY OF ATLANTA, GA. Paper; pp. 193. Atlanta, Ga. 1877.

This contains quite a lengthy report of discussions about sewerage, etc.

THE DETROIT LANCET

Vol. I. FEBRUARY, 1878. No. 2.

Original Communications.

Case of Removal, by the Ecraseur, of the Body of the Uterus, for Three Years Inverted by a Large Sub-Mucous Fibroid Tumor—with Recovery; and Remarks upon the Diagnosis and Treatment of Such Cases. Illustrated by two Plates.

BY H. O. HITCHCOCK, A. M., M. D.

About the 10th of May last Dr. Rankin, of Richland, conferred with me concerning a patient who had but recently placed herself under his care, and whom he supposed to be suffering from long continued hemorrhage dependent upon the presence of a large uterine polypus.

Dr. R. gave me the following brief outline of her medical history:

Mrs. T., aged 44, consulted him at his office on the 6th of May. She was at that time in a very anæmic and feeble condition, with constantly failing strength, with no severe pain, but with an ever present feeling of "bearing down," in the lower part of the abdomen and a continuous flow of blood from the vagina.

Twenty-six years ago, she says, she was delivered of a still-born child, and has ever since that time been troubled with "weakness of the bowels," as she termed it, but has had no leucorrhœa, and has never been again pregnant. For twelve years she wore an abdominal supporter, but ceased to wear it about nine years ago.

Five years ago she noticed that the menstrual flow became more frequent and more protracted—until three years ago, when the flow became, and has since continued constant, not ceasing for a day during the whole time.

She has taken much medicine from many physicians with no benefit.

Suspecting that the cause of her trouble might be a uterine polypus, I inquired if she had noticed any enlargement of the uterus, or anything unnatural about her person. She told me that at times something pressed down very low and would apparently pass "into the world" but for her crossing her legs to prevent it, and she supposed this to be the womb.

On making a digital examination I found a large tumor, either a polypus or fibroid, nearly filling the vagina.

I at once advised an operation for its removal as the only means of doing her any good. To this suggestion she readily consented, giving as a reason why she would submit to an operation, that she was conscious that she could not live much longer as she was. I gave her wine and iron and the bitter tonics, with ergot, and told her I would arrange with Dr. Hitchcock for an operation within a few days.

On the 16th of May last, the day on which I had agreed with Dr. Rankin to do the operation, I visited Mrs. T. with Dr. R., inviting my partner, Dr. J. M. Snook, to be present and assist in the operation.

We found Mrs. T. a tall, spare woman, extremely anæmic and weak, though still able to be about the house.

The lower eyelids were dark and slightly anasarcous, and the feet and ankles considerably so.

A woman of fortitude, with a calm but determined will, she and her husband had balanced the chances of life as she was, against the possibilities of an operation, and deliberately chose the latter.

On making a careful digital examination, I found a large, smooth, rather hard and elastic tumor, filling the whole vagina and presenting its rounded end just within the vulva. There was issuing from the vagina a sanious fluid so pale as to but slightly stain her linen. The lower end of the tumor was about the size and shape of a large orange. On passing the finger along its surface it was found to be about five inches long, up to what appeared to be its pedicle. There was no apparent constriction in the tumor until this was reached, and here the constriction was quite decided.

This constriction was within the neck of the womb, and the lips of that organ were distinctly felt surrounding the tumor.

I had no doubt of the character of the tumor, as that of a uterine fibroid which had been expelled from the womb, and had a rather broad attachment to one side of the body or upper part of the cervix of that organ—as the finger could be carried up to a higher point on one side of the tumor than upon the other. (*See plate 1.*)

Handling the tumor caused not much pain, but quite a flow of blood. With the vulcellum forceps I endeavored to bring the tumor down into sight. This was very difficult to do, and as it caused much pain, and as it seemed easy to pass the chain of the ecraseur over the tumor to its neck, and the proper thing to be done, I desisted from my efforts to bring down the tumor and proceeded to its removal.

The chain was easily passed over the tumor and seemed to glide naturally to its constriction or neck. In tightening the chain the patient appeared to suffer considerable pain, and I directed that she be moderately anæsthetized. The tumor appeared to be very hard and tough, and fully fifteen minutes was occupied in taking up the chain. The tumor was now drawn down and out, and as the ecraseur seemed to be very strongly attached to the womb above, I cut the tumor away below the chain by a scalpel.

Finding that my finger slipped into a cavity of the tumor at its cut end, and finding that several very large arteries had been severed I allowed the ecraseur to remain undisturbed. (*See 4–4, plate I, and 5, plate I.*)

Dr. Rankin has kindly furnished me with the records of the case after the operation.

"At 2 P. M. the patient was in considerable pain, and I gave her ½ gr. of morphine, repeating it at 3 and 4, when she became quite easy. I then ordered ¼ gr. morph. with 1 drop fl. ext. verat. vir. every two hours.

"After relieving her of about half a pint of urine by catheter at 8 P. M., she said she felt quite comfortable. Pulse, 88.

"17th, 7½ A. M.—Pulse 104; skin moist; abdomen tender and slightly tympanitic. Ordered: morph., gr. ¼; quinia, gr. ½ and 2 drops fl. ext. verat. vir. every two hours.

EXPLANATION OF PLATES.

PLATE II.

1-1.—The fibroid bisected.

2.—The fundus of the uterus inverted and split—showing the peritoneal surface.

3.—The extremely thinned wall of the uterus.

4-4.—The broad ligaments—showing the Fallopian tubes.

5-5.—The uterine arteries.

PLATE I.

1.—Fibroid tumor.

2-2.—Plane of division between fibroid tumor and uterus.

3.—Thickened hemorrhagic mucous membrane of uterus.

4-4.—Uterine arteries.

5.—Cavity of inverted uterus.

6.—The cut surface of the uterus.

7.—Opening of the Fallopian tube.

This interesting specimen is now in the Museum of the University at Ann Arbor.

The plates opposite were done by the new Bigelow photographic process, and while they are not all we hoped, still we think they convey the idea intended, and serve to explain the article. We found it impossible to have wood engravings prepared that would be as well done.—[PUBLISHERS.

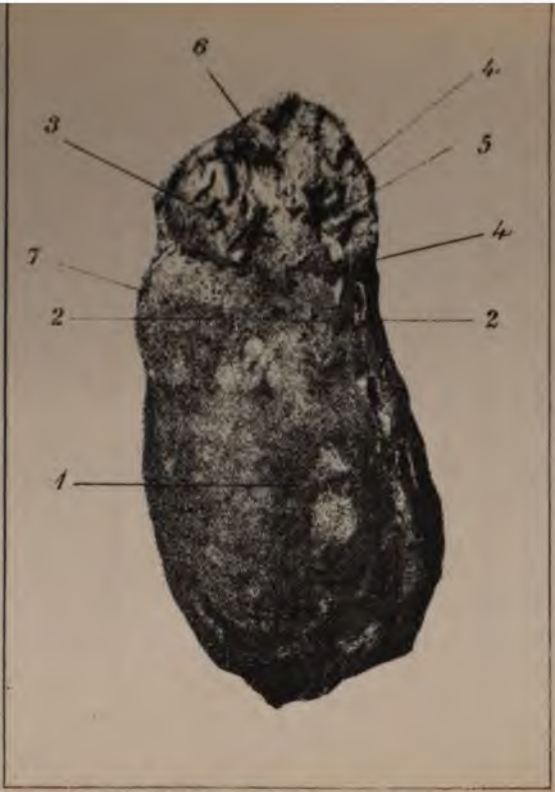

PLATE I

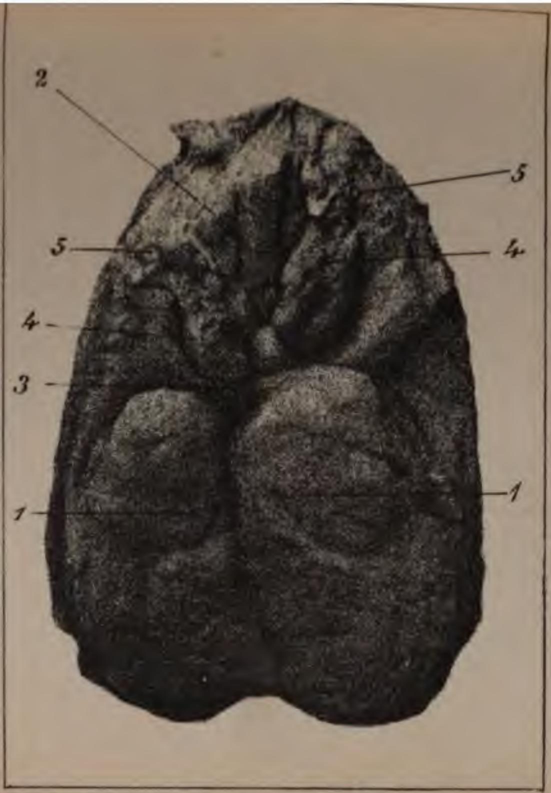

PLATE II

"18th, 8 A. M.—Pulse 120; patient passed a comfortable night; continue treatment. 7 P. M.—Pulse 112; abdomen quite tympanitic, but not very tender to pressure, nor painful. Morph. gr. ¼ every four hours and the quinine and the veratrum as before. Ordered also copious vaginal injections of warm carbolized water.

"19th, 8 A. M.—Pulse 112; continue treatment. The ecraseur came away this morning.

"20th, 7½ A. M.—Pulse 104. A sharp attack of vomiting and diarrhœa came on during the night, caused, probably, by beef essence which had been urged upon her—but which, with fresh beef in every form, she says she cannot take without causing diarrhœa. She takes eggs, oat meal, etc., in very small quantities. For a long time her stomach has been considerably irritable—digestion having grown very feeble during her protracted and exhausting hemorrhage. Ordered: quinia and morph., in doses as before, every four hours; omit veratrum; give bitter wine of iron every four hours. A short, vexatious cough, that has troubled her a long time, continues and causes considerable pain. 6½ P. M.—Pulse 112; has headache and feels very weak; abdomen still tympanitic; only one stool to-day.

"21st, 7 A. M.—Patient rested well during the night; one stool; vomited this morning after eating; pulse 100. 7 P. M.—Pulse 104; tympanitis nearly all subsided. Treatment continued.

"22d.—Patient doing well; pulse 96."

From this date to the 31st the patient seemed gradually but steadily to improve. The irritability of the stomach and the extremely feeble digestion, and almost entire absence of appetite, were the only unfavorable symptoms in the case.

From the 29th of May she began to sit up a little each day, and the appetite began slowly but steadily to improve.

On the 2d of June she complained of some pain in the groins and running down the thighs, and the feet and ankles were noticed to be more anasarcous. These symptoms, under the use of tinct. ferri. mur., pepsin and good diet, as the digestion and nutrition improved, gradually subsided and the patient became completely convalescent in about three weeks.

Near the last of October she came with her husband to show herself at my office and to tell me that the day before she had done her own washing. Feet and ankles still slightly swollen.

One month after the operation I visited her and made a vaginal examination, to find a very fair os and cervix uteri, a little shorter than normal. The probe or the finger would readily enter the os to the depth of about half an inch, to find the bottom of a short cul de sac.

The unusual character of this case, and the favorable result of a formidable operation, as well as the opportunity to impress with emphasis upon the minds of my brethren in the profession the importance of a careful, thorough diagnosis in such cases, and to discuss the best method of procedure for the relief of the patient, have induced me thus fully to lay the case before the profession.

I have no doubt but that, if all physicians would honestly and faithfully report the mistakes and failures which they have made in diagnosis, the literature of our journals would be far more instructive and useful to their fellow physicians than when they report only their successes in diagnosis.

Nor need they fear that they will find themselves in bad company by so doing, especially in cases similar to the foregoing one. Prof. Thomas, in his able work on "Diseases of Women" speaks of the "great frequency with which amputation of the inverted uterus has been practiced, under the impression that a fibrous polypus was being removed." And Dr. Sussdorff, of New York, says: *"It is not a very unfrequent occurrence for an inverted uterus to be mistaken for a polypoid tumor; neither is it very unusual to mistake for the pedicle of such tumors an inverted part of the uterus to which it is attached, and remove it by incision or ligature." Prof. Thomas says: "Out of fifty-eight cases of inversion of which a report is given hereafter, and in which amputation was practiced, seven were mistaken for polypi;" and he quotes from the *American Journal of Obstetrics* for August, 1868, those seven cases as follows:

Case 1.—"1836. Bloxam, *Gaz. Med.*, 1837. Labrevoit, l. c., p. 50. The inverted uterus was supposed to be a polypus." Ligature; result, recovery.

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* American Journal of Obstetrics, October No., p. 552.

Case 2.—"1843. Esselmann, Tennessee Soc., *West. Jour. of Med. and Surg.*, 1843, August. Breslaw, l. c. Inversion of twelve years standing, believed to be a polypus." Ligature; recovery.

Case 3.—"1816. M. A. Petetin Lyon, *Jour. Gen. de Med.*, T. i, vi, p. 128. Inversion, existing since three months; considered a polypus. Ligation; death."

Case 4.—"1824. Quoted by Boyer in his *Traite de Mal. Chir.* Inversion mistaken for polypus. Ligature cut through on 26th day. Death ensued on 38th, in consequence of septicæmia."

Case 5.—"Incomplete inversion, believed to be a polypus. Tumor came off on fifteenth day. Death ensued on twenty-third day."

Case 6.—"1806. Clarke, *Edinb. Med. and Surg. Jour.*, 1806, t. ii. Inversion caused by and believed to be a polypus. Ligation and amputation." Recovery.

Case 7.—"1820. Roettger, *Watther u. Græfe Jour.*, Bd. xxiii, p. 203. Inversion, after repeated removals of polypi, believed to be another polypus, by a barber, who intended removing it by pieces. Fundus cut off. Roettger placed a ligature around it to stop the hemorrhage, and cut away the tumor below. Ligature came away after three weeks. Menstruation is said to have appeared again."

Prof. Thomas says the "reason why such errors of diagnosis have so often occurred, when so many methods of differentiation were at command," is "that the possibility of error was not entertained."

When I placed the chain upon the tumor in this woman's vagina I had no doubt that I was about to remove a simple fibroid tumor with rather a large base. Inversion of the uterus, certainly, had not, at that time, occurred to me as possible.

The great and increasing pain, which the patient experienced as I tightened the chain, suggested to me that I might have a more grave operation on hand than I had at first supposed. But as the woman was nearly exhausted by her long continued hemorrhage, and as the flow of blood entirely ceased as I tightened the chain I determined to proceed.

The cavity in the severed end of the tumor, and the ends of two large arteries looking out from the cut surface, told me at once that I had amputated the body of the inverted uterus, together with the fibroid tumor which inverted it.

Of course *then* were clearly presented to my mind all the various means of differentiation which might, and probably should, have been made use of in such a case. These I will now briefly consider.

FIRST. *The history of the case* would seem rather to suggest a polypus, or a simple fibroid, which had descended into the cavity of the womb, at least three years before. Its appearance at the vulva during that time would suggest that the womb had expelled it into the vagina, but it could teach us nothing certain, as between simple polypus and simple fibroid tumor, nor between simple fibroid tumor and fibroid complicated with inversion of the uterus.

The fact, however, that hemorrhage had been *constant* for three years should perhaps have suggested that the polypus or fibroid was complicated by some condition still more grave; although in some instances—as in a case in which some years ago I removed a moderate sized fibroid, sessile within the womb—we do have in cases of simple sub-mucous fibroids, *constant hemorrhage.*

SECOND. *The sound* should be made to answer many questions in such a case.

If the sound would enter the uterus by the side of the tumor for 2½ inches or more, inversion would be fairly eliminated from the question. If the attachment of the tumor were at the fundus of the uterus, the sound, while in the womb ought to be carried completely around the tumor, or, showing us just where the obstruction to its passage was, we could learn to what part of the wall the tumor was attached.

But if the sound would not enter the womb at any point of the circumference of the neck of the tumor, to a greater depth than ½ an inch, or to a depth even considerably less than 2½ inches, we should then ask, *First,* Whether we have a fibroid tumor whose walls have become, in consequence of previous inflammation, adherent to the walls of the uterus; or, *Second,* a * hollow polypus attached to the whole circumference of the neck of the womb, whose cavity was continuous with the cavity of the uterus; or, *Third*, a fibroid which has inverted the uterus in its descent?

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* See case reported by Dr. Sussdorff in American Journal of Obstetrics for October, 1877.

If the tumor were now by strong traction brought fairly into view, we could pretty easily, and with approximate certainty, answer all of these questions. If the neck of the uterus were brought into view we could easily determine if the fibroid were still within the uterus with inflammatory adhesions to its sides.

If the lips of the uterus were more and more shortened, and rolled outward as the tumor was drawn down, it would indicate inversion.

Percussion of the tumor would determine whether it were hollow or solid. If it were evidently hollow, soft and compressible, with some elasticity like a soft India-rubber ball, the hollow polypus or simple inverted uterus would be indicated. A positive diagnosis between them could only be effected by means of the probe or sound, as Dr. Sussdorff has done in the case above referred to, and described as follows: "Selecting a stout Simpson's sound, it was introduced between the pedicle and cervix, and that portion of the attachment highest up selected as the best point to make the effort to pass it. * * * After a few moments the tissues yielded to a firm and steady boring force, and the probe slowly passed inwards."

Now, if the probe passes in only 2½ or 3 inches, it may fairly be thought to have entered the womb and the tumor to be made out as a hollow polypus. On the other hand, if the probe enters considerably more than three inches, and its point be distinctly felt through the abdominal walls, it may fairly be thought to have entered the abdominal cavity and the tumor be considered an inverted uterus.

In this case, however, it would have been very difficult to have passed the probe through the thick walls of the uterus at the upper end of the apparent pedicle. (*See plate 2.*)

In such a case, if the tumor should be drawn well down into view, the appearance of the surface of the tumor might be of great aid in the diagnosis.

In this case the thickened, velvety, bleeding mucous membrane of the uterus covered the whole of the upper part of the tumor down to the line 2–2 in plate 1, while the rest of the surface of the tumor was smooth, white and glistening. Much of this thickened membrane came off in the maceration of the specimen. It is well seen, however, at 3, in plate 1.

This appearance would not be decisive, but only suggestive of inversion, because a sub-mucous fibroid carries on its surface more or less of the mucous membrane of the uterus. But if, on careful examination of the surface of the tumor, the opening of one or both of the Fallopian tubes had been discovered, the diagnosis would have been complete. (*See 7, plate 1.*)

THIRD. *Conjoined manipulation* would be a very great adjuvant to the other means of diagnosis in such cases. With one hand carefully grasping the tumor, strong pressure with the ends of the fingers of the other hand above and behind the pubis would enable us to determine with comparative certainty whether or not the rounded fundus of the uterus were *in situ*, and if not, whether the ring or cupped shape of the inverted uterus were present.

FOURTH. If neither the one nor the other could be felt, attention should be directed to the *rectal touch*, to see if the finger could there detect the body of the womb, either retroflected or turned to either side.

FIFTH. These efforts, supplemented by the *recto-vesical examination* by means of a sound introduced into the bladder, carefully feeling for the body of the uterus between the end of the sound and the fingers in the rectum, would enable us with almost complete certainty to determine whether the body of the uterus were normally within the pelvis or had been engulfed by itself.

WHAT TREATMENT IN SUCH A CASE PROMISES BEST FOR THE PATIENT?

The diagnosis fully made out, that, in a given case, we have an inverted uterus of three years standing, and the fibroid tumor which inverted it still attached, what course shall we pursue? Several courses would be open to us; but let us ask, with these two plates before us, what course would have been most judicious in this case.

FIRST. The fibroid tumor might have been with comparative case enucleated as shown by plate 2. What would then have been the dangers and what probably the result?

The thickened and hemorrhagic mucous membrane of the uterus, as shown at 3, plate 1, but which extended over the whole upper part of the tumor down to the line 2–2, would have remained and the hemorrhage would have been increased. Considerable hemorrhage would have been caused also at the place of enucleation of the tumor. There would have been danger that the thinned wall of the fundus (*See 3, plate 2*) above the tumor would have been broken through in the effort to enucleate the tumor, and this would have complicated the case. Add to these dangers the danger of septicæmia in such a large and ragged wound, and certainly the effort to enucleate seems less promising to the patient than the operation which was performed.

SECOND. Could we have exactly fixed upon the plane of division (2–2 in plate 1) between the fibroid and the inverted fundus, which, however, was not indicated by any depression before or after the tumor was removed, the chain might have been made to cut the mass through at that plane, thus amputating the tumor only. This would have left the uterus still inverted; it would not have stopped the hemorrhage, but would have increased it. The chain would have been very likely to have broken through the thinned wall of the fundus and would thus have seriously complicated the case. Could just the fibroid have been removed in this way without any injury to the wall of the fundus, it is quite conceivable that the very act of tightening the chain might have caused the first step in a favorable reduction of the inversion. But there are so many contingencies that even this procedure would be of doubtful superiority to the one actually adopted.

THIRD. If the whole mass were to be removed, how should it be done? By the ecraseur? By ligature? By the bistoury? By the two last combined? or by galvano-cautery?

Prof. Thomas quotes from the *Am. Jour. of Obstetrics* for 1868 a summary of 58 cases of amputation of the inverted uterus. Most of the cases occurred before the so common use of the ecraseur, as well as before application of galvanism to such operations. A brief analysis of these, now 59, cases will close this already too lengthy paper.

Of these 59 cases 22 were amputated by ligature, in which the inversion was caused by puerperal condition, in 18 of which 5 died and 13 recovered; by fibroid tumor in 3, cancer in one, of which 3 recovered and 1 died.

Four were amputated by excision, 3 of which were caused by puerperal condition, of which two died and one recovered; 1 was caused by fibroid, and recovered; 27 were amputated by ligature and excision, of which 18 were puerperal, and 5 died and 13 recovered; 9 were caused by fibroid, of which 2 died and 7 recovered.

The ecraseur amputated 5—3 puerperal, all of which died, and 2 fibroid, of which 1 died and 1 recovered.

KALAMAZOO, MICH., January 18, 1878.

Remarks on the History and Etiology of Diphtheria.

READ BEFORE THE CALHOUN COUNTY MEDICAL ASSOCIATION BY AMOS CROSBY, M. D.

Diphtheria is not a new disease. Indeed, it dates back to a very early period. "Even Homer and Hippocrates advanced views from which Bretonneau sought to prove that the disease was known even in those times under the name of malum Egyptiacum, as a disease greatly to be feared."—(Oertel.) Sulphate of copper was spoken of as a preventive against the malady.

Again it is spoken of at the close of the first, and at the beginning of the second century after Christ. Aretæus describes the "malum Egyptiacum, and especially emphasises the fact that the tonsils are covered with quodam concreto humore albo, which spreads over the tonsils and gums."—(Oertel.) Children who have not arrived at the age of puberty were the most frequently attacked by this disease. The fetor which came from the mouths of the fatal cases is spoken of as being very loathsome. Fluids were regurgitated through the nose, and there was hoarseness and loss of voice. In some cases the disease extended to the air tubes and caused speedy death by suffocation. The disease as thus described by Aretæus originated in Egypt, Syria, and especially

Cœlo Syria, "whence it was described by the name of malum Egyptiacum, or Syrian ulcerations."—(Oertel.)

Forrest wrote of a similar disease as having occurred in Holland in the year 1557. Again, the disease is said to have prevailed in Spain in the seventeenth and eighteenth centuries under the name of gaviotillo, when the larynx was especially attacked; death being frequent by suffocation. It was described by the name of fregor when confined to the cavity of the mouth.

But the first accurate investigations concerning the nature of diphtheria were made by Bretonneau in the year 1821. In that year he wrote two treatises on the disease, which he presented to the French Academy of Medicine. The other writers referred to, and who preceded him, did not always avoid confounding this with other diseases; such as scarlet fever, etc. Bretonneau gave the disease the name of diphtheria, from the characteristic fibrinous exudation which accompanies it. Diphtheria, according to Bretonneau, never existed without the exudation, and no inflammation of a mucous membrane with an exudation is diphtheria except it come by contagion. Indeed, the poison of itself of the disease, according to this writer, is the membranous exudation. And Bretonneau held that contagion took place only when the diphtheritic fluid, or dust-like atoms, were brought into immediate contact with the soft mucous membrane, or skin deprived of its cuticle. Inoculation he believed the only means of conveying the disease. Diphtheria could not be conveyed from one person to another through the medium of the atmospheric air.

Diphtheria and croup, according to Bretonneau, are one and the same disease. The former is only the severest type of the latter. At first Bretonneau insisted that diphtheria was only a local disease. Afterwards he admits a blood-poisoning as one of its chief characteristics. After Bretonneau and other writers and investigators, Virchow called attention to the occurrence in diphtheria of an exudation into the substance of the mucous membrane, interfering with the circulation of the blood in the part, and causing mortification from insufficient nourishment; whereas in croup the exudation is *upon* the mucous membrance and not *into* its substance

On the other hand, Wagner endeavored to prove that diphtheria and croup are one and the same disease; that they differ only in location, the former being confined to the throat, while the latter involved the air passages. Wagner also held that the formation of the false membrane depended not upon a fibrinous exudation, but on a peculiar change in the epithelium of the mucous membrane, which he denominated fibrinous degeneration. Buhl taught that the local affection in diphtheria is merely the local manifestation of a general disease; this local affection manifesting itself by preference in the throat and air passages. "That the chief characteristic of the disease consists of nuclear or cytoid growth of the submucous connective tissue, a process which leads to the death of these tissues through compression of the blood-vessels."—(Oertel.) Dr. Watson regards the disease as a blood disease, and in support of his theory mentions certain changes as taking place in the blood of patients affected with diphtheria. Dr. Millard, he says, "found upon examining blood drawn from a diphtheritic patient that it was visibly altered; instead of being the usual red color, it was brown, like plum juice, and stained his fingers."—(Watson's Theory and Practice of Medicine, 5th edition.) But Dr. Watson does not tell us at what stage of the disease Dr. Millard made his observations. Neither does he give us any information as to the type of the disease with which Dr. Millard's patient was afflicted. Had he informed us as to these things, his information might have been more valuable.

Dr. Watson calls attention to another fact which he considers as a very strong proof that diphtheria is a blood disease. I have reference to the fact, that albumen is so generally found in the urine of those sick with diphtheria. I will not, however, discuss this question here, as I shall have more to say in regard to albumen in the urine by-and-by. Dr. Watson regards this disease as contagious, but does not tell us by what means he thinks it is conveyed from one person to another.

Dr. Austin Flint (Flint's Theory and Practice of Medicine) regards diphtheria as a general infectious disease, the local affection being merely a local manifestion of the general disease. And while he seems to incline to the opinion that the disease is contagious, he does not express himself positively upon that point. Neither can he be definite as to the active agent by which the disease is brought into being; in other words as to the exciting cause of the disease.

Niemeyer says (Niemeyer's *Theory and Practice of Medicine*): "Diphtheria belongs among the infectious diseases, and even among those that are most typically contagious. The miasmatic origin of the disease is doubtful." The contagion, according to Niemeyer, "is contained in the false membrane and shreds of tissue detached from the fauces, and in the air breathed out by the patient." Niemeyer rests here. He does not tell us how the disease is brought about; or what active agent capable of producing the disease is contained in the false membrane, shreds of tissue and air breathed out by the patient. He, however, goes a step farther than some of the writers above referred to. But the theory concerning the cause and nature of diphtheria has undergone a marked change during the past few years; especially with many of the more prominent German writers and investigators. Oertel tells us, in Ziemssen's Cyclopædia, "that the discovery was made by Hueter and himself simultaneously, that the diphtheritic membranes, the subjacent diseased parts, and even the blood, contained large numbers of vegetable organisms, or bacteria. He also says that "the especial significance of vegetable parasites in diphtheria and diphtheritic contagion, was still further insisted on by Recklinhausen, Waldeyer, Klebs, Eberth, Heiburgh and others, who also pointed to the partial dependence of the pathological changes, on the growth of these organisms."

There is one form of bacteria, according to Oertel, which in particular penetrates the tissues wherever the diphtheritic disease is found. The bacteria, to which allusion is here made, are spherical in form, and are called, by Oertel, micrococci. These are usually accompanied by another form (rod-like bacteria) called bacteria termo. I wish to call especial attention to these forms of bacteria, because diphtheria always has its own peculiar forms of these parasites. Wherever a diphtheritic exudation is found, there will be seen the micrococci and bacteria termo, especially the former. These bacteria spread themselves over the membrane, and are found crowded between the epithelial cells. They also get into the blood and lymph vessels, and mechanically dam up these vessels, and obstruct the circulation of fluids through them. They thus disturb the nutrition of the part, rupture the capillaries, cause effusion of the serum and extravasation of blood.

These micrococci are also found in the muscles, crowded between their fibres; these muscles, or parts of them, degenerate and slough. They also appear in immense numbers in the kidneys, in the uriniferous tubules and malpighian corpuscles.

What part do the organisms play in this disease? Is their presence to be attributed to the result of mere accident? Are they present because the disease furnishes them a favorable soil in which to germinate and grow? Or are we to regard them as of more importance, and as the exciting cause which produces the diseased condition called diphtheria? In order to throw light upon these questions, Oertel and others in Germany, instituted a series of investigations and observations.

By closely watching the progress of the disease, and the pathological changes as they took place, from the earliest commencement of the disease, they found that the vegetations above referred to, especially those of the spherical form, the micrococci, accompanied by a greater or less number of the bacteria termo, the latter being always represented by the smallest form known, were constantly present in large numbers wherever a diphtheritic infection appeared. The exudation and tissues were always filled with these parasites; and the more severe the type of the disease the more numerous were the bacteria. Whenever the disease increased in severity, there was also a corresponding increase in the number of these vegetable organisms in the infected parts. Oertel says: "I have repeatedly demonstrated a rapid and great increase of micrococcus and bacteria termo a short time before the formation of a diphtheritic layer on the edges of the wound, and the occurrence of consecutive symptoms." Oertel is speaking of the wound made in the operation of tracheotomy.

You will please mark the language. The increase of bacteria is not after the formation of the diphtheritic layer. Neither does the rapid and great increase take place simultaneously with the exudation; but it occurs a slight time before. The bacteria have first their work to perform before the local pathological process establishes itself.

In the beginning of the disease, before the false membrane has formed, and before any destruction of tissue has occurred, these organisms are found. They are present at the very earliest period of the disease. If we examine the fauces of our patient, at the commencement of an attack of diphtheria, we shall discover upon the mucous membrane small grayish-white spots. Oertel informs us that these spots are made up of micrococcus growths and epithelial cells. The bacteria have already commenced their work of disturbance; have crowded themselves between the cells of the epithelial layer, and have forced these cells out of their places.

The fact of the presence of large numbers of bacteria in the diphtheritic disease does not depend upon the testimony of a single observer, but it is established by the observations of numerous eminent and careful observers and writers. Oertel says these bacteria "were discovered as far back as 1868 by Buhl, Hueter and myself, in the false membranes, the blood and tissues; in like manner they were demonstrated by Von Recklinhausen, Nassilof, Waldeyer, Klebs, Eberth, Heiburgh and others, in the most different organs and tissues. In secondary infection of wounds, tracheotomy incisions and ulcers, grayish skin-like false membranes, as well as the tissues themselves underlying them, are crowded with these organisms."

And it makes no difference whether the local manifestation establishes itself upon a mucous membrane as the result of the disease coming in the natural and usual way, or whether a diphtheritic exudation spreads itself over a wound made in the operation of tracheotomy; the same order is observed as to the appearance and increase of bacteria. The bacteria are always *first* in order.

In order to increase their facilities of observation as to the behavior of bacteria in the diseased changes which take place in diphtheria, as well as to throw light upon questions involved in the study of this disease, the investigators above referred to, Oertel and others, instituted a series of experiments upon the lower animals by inoculation. Rabbits were chosen as the animals upon which the experiments were made. Nassilof and Eberth inoculated the cornea; Von Freudelmberg inoculated the animals in the mucous membrane of the trachea; Hueter and Tomasi made use of the muscles. Oertel also made use of the muscles as well as the mucous membrane in his experiments. In the cases in which the cornea of the eye was used as the place of inoculation, the bacteria were seen to force themselves *en masse* between its layers; these layers were thus crowded asunder; intense keratitis supervened, and thence the disease spread itself, and killed the animals on the fourth or fifth day, Oertel tells us, "by secondary general infection." When the inoculation was made upon the mucous membrane of the trachea, the bacteria spread themselves over the membrane, attacked the cellular elements, worked their way into the blood vessels and lymph ducts, and in a mechanical way dammed up these vessels, and thus caused effusion to take place. Moreover, by closing up the capillary vessels they obstruct the blood circulation. Thus they produce a disturbance of nutrition, and an extravasation of blood by rupture of the walls of these vessels. A diphtheritic exudation spreads itself over the membrane, and acute disease of the kidneys supervenes; also a general infection of the blood, followed by the death of the animal on the fourth or fifth day.

In the case in which the muscles were made use of for the reception of the infectious material, the edges of the wound made in inoculation were covered with a diphtheritic exudation; the muscles themselves were affected with a hemorrhagic inflammation, followed by general disease, which usually killed the animal in thirty hours.

In all these cases, says Oertel, "a rapid increase of the vegetation follows in an extremely short space of time, the point of inoculation forms a center from which the growth of these organisms radiates through the tissues, and the intensity of the infection is wholly proportionate to the degree in which the tissues are penetrated by these parasites."

Moreover, when the matter to be used in making the inoculation, contained other forms of bacteria than the micrococcus and bacteria termo, only the two latter forms gave evidence of prolific growth; the micrococcus and bacteria termo increased in number rapidly, while, on the other hand, all the other forms soon disappeared entirely. And just here I wish to call your attention particularly to this one fact (a fact to which allusion has already been made) the fact that diphtheria has its own peculiar forms of bacteria. It is a fact which has been demonstrated, that when other forms of bacteria than those peculiar to diphtheria have been present, as a result of other diseased conditions, that as the diphtheritic disease was set up in the part, the other forms began to disappear rapidly and finally disappeared entirely, and their place was occupied by micrococci and bacteria termo. And finally, says Oertel, "we must mention the experiments of Eberth in which he obtained completely negative results, although the cornea was repeatedly inoculated; in these attempts the pieces of membrane, finely divided, were thrown into Pastewi's fluid, and the liquid was then first passed through a clay filter, or the bacteria were separated from the same by agitation before it was used for inoculation."

What, then, is the relation that bacteria sustain to diphtheria? I have shown that at the very commencement of the disease, before the exudation takes place and the false membrane forms, the bacteria are present; that they spread themselves over the membrane, work their way down between the cells of the epithelial layer, and derange the anatomical relation of those cells by forcing them from their proper places; that they find their way into blood and lymph vessels, and mechanically dam up those vessels, thereby deranging nutrition, causing an exudation of serum and rupture of the walls of the capillary vessels. We have also seen that wherever we have diphtheritic infection, there we find micrococci, and that their number always bears exact relation to the severity of the disease; that in cases in which the disease is of the severest type we find the greatest number of bacteria, and, on the other hand, when the disease is mild in character so is the number of bacteria smaller. Are these organisms then of merely accidental occurrence, or do they not, rather, bear the relation of cause to the diseased changes that take place in diphtheria? Oertel says, "Without micrococci there can be no diphtheria; we find them in the very smallest and most superficial plaques, we see them in immense collections in the tissues, we meet them in embolisms as the cause of metastatic abscess, and the intensity of the toxic infection increases with the number of these organisms."

We come now to the question, Is diphtheria a general infectious disease, and the local affection only a local manifestation of this general disease; or is it at first a local disease, afterwards becoming general? If the former, if diphtheria is from its very earliest commencement a general infectious disease; if the poison first enters the circulation through the medium of the lungs by being inhaled with the air we breathe, or through the stomach, being taken into that organ in the act of eating or drinking; whether it enters through a mucous membrane, or makes its first impression on the surface of the body, and enters through the skin, or by any other means gets into the blood and permeates and poisons the whole system, and the disease, as we see it manifested in the throat, nose and larynx, is only a local manifestation of this general diseased condition; this local affection taking place by preference in the throat and air passages; then it would follow that in whatever manner the diphtheritic poison is introduced into the system, the first *local specific pathological changes* should make their appearance in the fauces, in the larynx, or in the nasal passages. This should be the rule. If the local affection is only a local manifestation of a general infectious disease, it should make no difference as to the manner in which the infectious matter enters the circulation, provided it finds its way into the system. Whether it enters the usual and natural way; whether the poison is introduced by inoculation into the cornea of the eye, and gets into the circulation from this source; whether it is inoculated into the mucous membrane of the trachea; or whether inoculation is made into a muscle, the result should be the same. The first specific local disturbances should show themselves at one or more of the points mentioned above; the diphtheritic exudation should spread itself over the mucous membrane of the fauces or air passages.

We have a striking illustration of this principle, in the action of remedies upon the system. It makes no difference whether we administer our remedy by having it taken into the stomach; whether we inject it into the abdominal cavity; or whether, with the hypodermic syringe, we place it under the skin. It has the same effect in either case. If there is any difference at all it is only in time and degree. We also find this view sustained by the result of experiments made upon the lower animals by inoculation. Bollinger, a writer in Ziemssen's Cyclopædia, inoculated the ear of a rabbit with fresh infected pus from the nose of a glandered horse. The animal became infected and died in three months. "The autopsy showed specific ulcers of the ear, with partial disorganization of the cartilage, inflammation of the corresponding lymphatic vessels; specific nodules of the frontal bone and sinuses, and finally tubercles and ulcers of the mucous membrane of the nasal cavity." Bollinger also infected a goat with the puriform secretion from the nose of a horse, the virus being introduced by injecting the substance, diluted with water, into the abdominal cavity. There were specific ulcers in the nose of the animal in seven weeks, attended with a profuse purulent discharge from that organ, and, in the words of Bollinger, "forming a typical picture of glanders." When glanders comes in the usual way, the specific local pathological changes show themselves in the nose, larynx, bronchi and lungs; sometimes only in the three latter. Oertel tells us, that in the inoculation of horses with the poison of glanders, the disease *always* appears locally upon the nasal mucous membrane. It will, therefore, be seen that it makes no difference how the infectious matter of glanders gets into the blood of an animal; whether the animal contracts the disease in the usual way; whether the virus is introduced by inoculation, or whether it is introduced into the bowels, the local manifestations are the same. Glanders is regarded as a general infectious disease with local specific manifestations.

But in the experiments heretofore referred to, in which animals were inoculated with the contagious principle of diphtheria, we see different results. When the virus was introduced into the cornea, there the local affection first made its appearance; in the cases in which the poison was introduced into the mucous membrane of the trachea, the first pathological changes took place in this membrane, about the point where the poison was introduced; and when the muscles were inoculated, *there* the first disturbance took place, and *there* the diphtheritic exudation made its appearance. In other words, the disease *invariably first* manifested itself locally, at the point where the poison was introduced. And it did not then or afterwards manifest itself specifically in the throat or air passages.

Oertel says: "I believe I have furnished, by a series of experiments, the proof that diphtheria begins as a local disease, and develops afterward into a general one; and that, moreover, the general infection is kept up by the local one."

I believe the observations made, and the facts ascertained, to which allusion has been made above, sustain the theory, that diphtheria originates *locally* in that portion of the mucous membrane over which the air must sweep, in its passage to the lungs, or over which food and drink must pass in being taken into the stomach. The germs of the disease may be inhaled with the air breathed, or they may adhere to drinking vessels, or to articles used in feeding a patient who is sick with diphtheria, and thus find their way into the mouths of those who afterwards use these vessels; or saliva containing the germs may be coughed by the patient into the mouth of another who is examining his throat. In whatever manner the bacteria come in contact with the mucous membrane, if it is in a condition favorable, they adhere to it. If this membrane is affected with catarrhal inflammation, or if it has an abraded surface, of course its condition is more favorable for the adherence of these parasites than if in a healthy or sound condition. There are doubtless other conditions, not so well understood, that *increase* or *diminish* the susceptibility to this disease. The bacteria, after fastening themselves to the mucous membrane, work their way into it, and produce the disturbances to which I have previously called your attention. By their influence, locally, they cause the local disease. The disease thence spreads by extension to the adjacent parts, and, by the process of absorption and by means of the circulation, to other parts of the body. The kidneys especially soon become involved in the disease. This diseased condition of the kidneys is early shown in the majority of the cases by the appearance of albumen in the urine. But albumen is not a constant symptom; it is not present in the urine in *all* the diphtheritic cases. In the experience of some observers only two-thirds of the cases were affected with albuminuria. But as to the frequency and the amount of albumen in the urine, both, we are told, vary greatly in different epidemics, and in different cases in the same epidemic. But the presence or amount of albumen, in many cases at least, affords no means of determining the final result. The disease may terminate fatally by rapid extension to the air passages, and yet very little albumen, or *none at all* be found in the urine (Oertel), which shows conclusively that the local affection precedes the appearance of albumen in the urine.

The presence of albumen in the urine, however, does not seem to depend upon a blood poison, but upon pathological changes which take place in the kidneys themselves; and these changes may, without difficulty, be traced to the action of bacteria. The kidneys, according to Oertel, are soon attacked with the diphtheritic process. A similar diseased condition is found to exist in the kidneys to the one we see manifested in the throat and air passages. In the severer cases, and, especially, in those cases which have terminated fatally in consequence of a blood poisoning, the kidneys are found to be lividly congested, the cortex and medulla deeply reddened, and in color hardly distinguishable the one from the other. While on the other hand, in the cases in which the patients, especially children, have died by suffocation, the kidneys are found but slightly affected. (Oertel.) Between these extremes intermediate degrees are to be observed in different cases. "The greatest alterations are to be found in the uriniferous tubules and malpighian tufts." (Oertel.) The malpighian bodies in some of the cases could not be distinctly recognized, and in their places appeared numerous points of blood.

Rupture of the vessels happens exceedingly often in the malpighian bodies themselves. (Oertel.) In some of the cases the epithelial cells of the uriniferous tubules are loosened from the wall and lie rolled together like solid cylinders in the middle of the canal, "and correspond completely with the epithelial casts which are found in the course of the albuminuria of these patients;

and between these thus altered uriniferous tubes, are found numerous others, the caliber of which is filled with blood." The source of the bleeding is usually to be sought in the malpighian tufts, from which the blood has poured into the tubes. (Oertel.)

Bacteria are found in all the kidneys in which pathological changes have taken place as a result of diphtheria.

Numerous micrococci are found in the malpighian tufts. According to Oertel they are often found in balls or heaps in these bodies, as well as in the uriniferous tubes. Eberth, says Oertel, "saw the uriniferous tubes of the pyramid often completely plugged for a short distance with micrococci, or containing small colonies of them." Why then do we have albuminuria in diphtheria? Do not the pathological changes which take place in the kidneys sufficiently account for the presence of albumen in the urine? And how are these changes brought about? What is the active agent which causes them? When we take into consideration the intimate anatomical relation which exists between the malpighian tufts and the uriniferous tubules, it would seem that some of the pathological changes mentioned above, can very easily be explained as the result of the chemical action *alone* of bacteria.

I cannot, however, in this paper enter into the discussion of the question, as to whether bacteria act only mechanically in the production of the pathological changes which take place in diphtheria. Whether they act as carriers of a zymotic poison; whether they act by appropriating to themselves certain of the elements of the blood and tissues, or in some other mode or modes, are questions worthy of our consideration. And I have already so far extended my paper that I cannot now refer to the pathological changes which take place in the brain and spinal nerves, and other organs and tissues of the body. The discussion of these questions I shall therefore leave for a future paper, or to other and more able pens than mine.

After twenty years of work Mr. Spencer Wells has retired from the Good Samaritan Hospital. Private business absorbs all his time and energies.

The Indigenous Medicinal Plants of Michigan.

BY A. B. LYONS, M. D., READ BEFORE THE DETROIT ACADEMY OF MEDICINE.

The list of our materia medica, which is every year becoming extended, notwithstanding the growing distrust in the health-restoring efficacy of drugs, embraces a bewildering variety of substances from every conceivable source. The mineral kingdom is laid under contribution, and the skill of the chemist is called into requisition to devise such combinations as shall produce most certainly and most agreeably the effects desired. The animal kingdom is invaded, not alone for such exceptionally active substances as are furnished in the secretions of the musk deer or the beaver, but for those essential constituents of the natural fluids of the body (*e. g.*, pepsin in the gastric fluid) which in certain conditions of the system are produced in insufficient amount. Yet it is to the vegetable world that we are most largely indebted for the properly remedial agents we employ.

"The age culls simples"—as former ones have done—the poet adds "with its broad clown's back turned broadly to the sun"—a censure of the materialistic spirit of our scientific studies that is I fear too just even in this nineteenth century.

But our simples are culled for us often by people of strange speech—the South American Indian, the Hottentot, the Australian, and the Mongolian, and come from nearly every country on the face of the earth. Having easy access thus to the treasures of all the world, we are rather apt to neglect our own undeveloped resources, and indeed are ignorant perhaps ourselves of the extent and value of those resources.

Our own State is almost wholly dependent upon foreign sources for its supply of crude drugs. We go abroad even for those herbs which grow most abundantly in our own fields and woodlands. In fact the flora of our State is an unusually rich one, and it contains not a few of the most important medicinal plants used in the so-called "regular" practice. The object of the present paper is to enumerate and comment briefly upon the more interesting of these indigenous medicinal plants of Michigan. Viewing the subject primarily from the stand-point of the botanist, I shall take up the plants first as they group themselves in natural orders, although to the medical man a classification of drugs based upon their therapeutic action might seem more truly natural.

The first natural order in the arrangement commonly adopted, is the Ranunculaceæ—the family of the butter-cups—a large one, including many plants prized for the fantastic form and rich coloring of their flowers, and not a few of the most potent drugs. I need only instance as illustrations of the former the larkspur, monk's-hood, and columbine, of the latter aconite, the most active of all poisons, a favorite remedy therefore of our homeopathic brethren who "wish to avoid the disturbing effect upon the system of such powerful agents as the 'allopaths' use."

Many of the Ranunculus family contain an acrid principle which has made them of occasional service as rubefacients or epispastics. This is especially true of the various species of the typical genus from which the order takes its name, the "butter-cups" and "crow-foots" (Ranunculus). Our familiar field butter-cups (***Ranunculus acris***) is not indigenous, having been imported to us from Europe, but the common butter cup of meadows and low grounds (***R. repens***) that resembles it very closely is a native, and so are most of the other species, a dozen or so, that are more or less abundant, throughout the State.

Much more important to the physician is the golden seal (***Hydrastis Canadensis***), a plant nowhere very abundant, and found only somewhat sparingly in rich woodlands in the southern portions of our State. With its large veiny leaves, a solitary one springing from the root, and a single pair borne at the summit of the stem, its greenish flower destitute of petals, its raspberry-like fruit consisting of a cluster of scarlet berries, and its yellow, knotty root, the plant is one that attracts the attention of the least curious, while its medicinal properties, that are as yet only imperfectly understood, are not less remarkable than are its peculiarities of aspect. Its virtues, like those of the Aconite, are due at least in part to alkaloids of which it contains two, hydrastia, peculiar to this plant, and berberina, found also in many other plants of this and other (mostly allied) orders.

In deep, wet woods, throughout the northern part of the State one meets frequently with a delicate trailing plant whose shining three-parted leaves remind one of the dew berry or creeping blackberry with which we in more southern latitudes are familiar. This plant however grows not in sand, but more commonly among the mosses in bogs or on the trunks of fallen trees. On tearing it from its slender hold, we notice that its long thread-like root is of a bright yellow color, and at once the name "gold thread" comes to us, and we recognize its aptness. Yes, this is the *Coptis* whose efficiency as a "simple bitter tonic" warrants the estimation in which it is held in domestic practice.

In the delicate, pretty, slender-pointed white stars that form its blossom it is the sepals which constitute the conspicuous portion, the star, while the petals are reduced to insignificant club-shaped appendages. The star-like flower gives place to a star-like dry fruit. As in the golden seal, the yellow color of the root is associated with the presence of the alkaloid berberina, to which the active properties of the plant are doubtless in part to be ascribed.

Among the rarer plants of our Michigan woods, is one commonly known in medicine by a name unpleasantly suggestive, Cimicifuga, called variously by botanists Actæa, Macrotys, Cimicifuga, and popularly known as black snake-root. This is Pierce's Golden Discovery (or his favorite prescription, I really forget which), and is doubtless a valuable medicine. Hardly any of our summer wild flowers are more worthy of note for their beauty than this stately herb whose slender, erect, wand-like racemes have given to it its specific name, racemosa.

The well-known Hepatica or liver leaf whose delicate purple-blue or white flowers are among the first in this latitude to herald the advent of spring, maintains a position in the secondary list of the U. S. P. probably more as a relic of the old absurd doctrine of signatures, than from any real merit. Among the members of this family of which I find mention in the United States Dispensatory, but of doubtful efficacy in medicine, is the wind-flower (*Anemone nemorosa*), abundant everywhere, whose blossoms, too shy ever to expand wholly, yet too eager to meet the first warming rays of the returning sun to be discouraged by the rude blasts of April gales, are medicine indeed to those of us who after six months of continuous winter grow sick with longing for the life and beauty and abounding joy of the summer season.

Resembling the wind-flower in aspect, but still more strongly the *rue anemone* is the Isopyrum biternatum, which is however a rare plant in Michigan.

The white cohosh (*Actæa spicata*), known by its waxy white, mealy berries, borne on short thickened stems in an erect spike (two inches in length), is common in woodlands.

The wild larkspur (*Delphinium exaltatum*), familiar enough in cultivation, is occasionally met with in Michigan, but belongs rather to the south, and is chiefly interesting from its close relationship to the more active aconite.

The virgin's-bower (*Clematis virginiana*), a climber, prized rather for the beauty of its abundant white flowers and still more for that of the cloud of down which it exhibits in fruit, than for its utility in medicine, is widely distributed in the State.

The magnolia family has but a single representative in Michigan, the stately, luxuriant growing tulip tree (*liriodendron tulipifera*), alone among our forest trees in following the tropical fashion in its conspicuous, gaudily colored, tulip-like blossoms. It belongs in fact to a milder climate than ours, and is not found much further north than Detroit. It is enumerated, however, by C. F. Wheeler among the plants of Ionia county. In medicinal properties it seems to resemble the willows, and perhaps has been, like them, heretofore too much neglected.

The custard-apple family is represented also by a single species, the papaw (*Asimina triloba*), whose seeds are said to be an active emetic.

The moon-seed family, which like the last two belongs chiefly to the tropics, and furnishes to the materia medica the poisonous cocculus as well as the mild bitter calumba, has its representative with us in the *Menispermum Canadense*, the bitter yellow root of which, like calumba, contains berberina, and has been sold under the name of Texas sarsaparilla.

The barberry family is a small one, but it furnishes us one of the most valuable of all the remedies drawn from the vegetable kingdom. Among the plants that attract our attention in the early spring is one that unfolds rapidly from the summit of a short stem (1° high), two large peltate leaves, round in general outline, but deeply lobed. At their base appears a bud which promises to open speedily, but we watch it for weeks with unsatisfied curiosity. At length, when the ample leaves have nearly attained their growth, the tardy bud expands, and at last bursts into a blossom of surprising beauty; petals of purest white, forming a symmetrical chalice to contain the numerous pale-yellow filaments and a curiously twisted body, the unformed future fruit in the center. The flower is succeeded by a fruit of the size and shape of a greengage plum, which when ripe is fragrant and edible. This is the May-apple or mandrake (*Podophyllum peltatum*), from the root of which is prepared the powerful resinoid, podophyllin, the basis of the "pleasant purgative pellets," "mandrake pills," and numerous other popular laxative and "anti-bilious" remedies.

It is interesting to note, again, in this plant the presence of the alkaloid berberina—named from the Barbary in which it was first discovered—which gives to much of the podophyllin in the market its golden-yellow color.

A rare and curious plant is the twin-leaf Jeffersonia diphylla, which has some repute as an expectorant and emetic.

Remarkable for its bluish, glaucous foliage, is the more common blue cohosh, Caulophyllum, believed to exert a special influence over the functions of the uterus.

The water-lilies, forming a family by themselves, Nelumbiacæ, need only be mentioned for the possible virtues which their fleshy, astringent, bitter roots may possess.

Among the curiosities of the vegetable kingdom are the trumpet-shaped insect-traps which constitute the leaves of the pitcher-plants (Sarraceniacæ). Not less curious, though less obvious in design, is the umbrella-shaped expansion of the style, which, in these plants, covers the flower like a lid. The single species which is common in bogs throughout our state, S. pupurea, has heen lauded as a specific in the treatment of small-pox; another instance, perhaps, of the influence of that obsolete doctrine of signatures.

The importance of the poppy family in medicine leads us to expect much from the few representatives it has in our State, and we are not disappointed, for here we find the familiar name of sanguinaria—*blood root.* Growing abundantly in rich woodlands, the plant might readily be overlooked were it not for the conspicuous beauty of its pure white, solitary blossoms, which appear with the hepaticas and anemones, as forerunners of summer's profusion of flowers.

Like most of the plants of this family, this one exudes when wounded a thick, colored juice, the red color of which suggests the Latin as well as the popular name of the plant.

This, in fact, is the only plant of the poppy family that fairly belongs to our State. The prickly poppy, Argemone Mexicana coming from further south, has established itself in the southern part of the State, and like the wild celandine, a stranger from over the water, possesses active medicinal properties, although rarely used among us.

The mustard family contains no plants that are properly poisonous, but numbers several, like the horse-radish, water-cress, that are esteemed anti-scorbutic, and a few which contain an acrid volatile oil, rendering them useful as rubefacients and revulsives. Most important of all is the common black mustard·which, though not indigenous, has become thoroughly naturalized. I merely mention, besides this, the marsh-cress (Nasturtium palustre), pepper-root (dentaria), of which we have two species, the rather rare cuckoo-flower (Cardamine pratensis), the hedge mustard (Sisymbrium officinale), the pepper-grass (Lepidium virginicum) and the shepherd's-purse (Capsella bursa-pastoris)—the commonest of weeds—naming those only which are mentioned in the U. S. Dispensatory, and so dismissing a family that is more perplexing than interesting to the botanist.

The rock-rose family (Cistaceæ) also furnishes one plant that is thought worthy of a place in the U. S. P. secondary list—the frost-weed (Helianthemum Canadense).

Violets have formerly been used largely in medicine, and so I must include in my enumeration the dozen or so of species that belong to our State.

The sun-dew family has recently been the subject of many interesting observations on the carnivorous properties of plants, and this has, perhaps, led to a study of the medicinal virtues of the most common species of the family—Drosera rotundifolia.

St. John's-wort, which gives the name to the next natural order, is known to us only as a pernicious weed, introduced into this country from Europe; it formerly enjoyed a high repute, not only as a vulnerary, but in the treatment of a great variety of diseases; but it is now omitted from the list of the U. S. P. We have, besides, half a dozen indigenous species, some of which probably have the virtues, if there be any, that belong to the naturalized plant.

The large family of the pinks (Caryophyllaceæ), furnishes us no indigenous plants at all noticeable for beauty, or useful medicinally. The naturalized soap-wort (Saponaria officinalis), is an exception to the rule in this family, in that it contains a poisonous principle, saponine.

The mallow family furnishes no indigenous plants of any interest, although two species of malva—the high and the low mallow —have become naturalized among us, and are sometimes used as demulcents.

The allied purslane family contains no plant of greater interest than the very troublesome weed from which it takes its name; a plant commonly eaten in many countries "for greens," and esteemed anti-scorbutic.

In the wild crane's-bill (Geranium maculatum), representing the geranium family, we come to a useful astringent which is not seldom prescribed by our physicians. It is found abundantly in wild lands everywhere, and might come into more general use were it not for the troublesome propensity its preparations have to gelatinize with age. The rank smelling herb Robert is also a species of geranium, but quite different in its properties from G. maculatum.

The touch-me-nots (Impatiens fulva and I. pallida), are succulent, pale-foliaged plants, common everywhere in moist, shady places—reputed useful in the treatment of piles.

The rue family is a large and important one, including the well-known genus citrus, to which belong the orange, lime, lemon, citron, etc.; our own flora includes but two plants in this order; both of them, however, worthy of note.

One is the American hop-tree, or wafer ash; the latter name applied to it from the appearance of its thin, round, dry fruit, clustered in globular heads, the former because this fruit has been used as a substitute for hops. It is undoubtedly a valuable medicine, possessing tonic properties without the intense disagreeable bitterness of gentian or quassia.

The other representative of this family is the American prickly ash, the fiery qualities of whose aromatic, dry red berries most of us have had experience of in our younger days. No one certainly can ramble much in southern Michigan without learning to respect the territory guarded by the sharp, hooked prickles of the shrub. Entomologists recognize it as the feeding plant of a caterpillar, from which comes one of our handsomest butterflies (Papillio cresphontes). The bark, like that of the wafer-ash, contains berberina, and is tonic, resembling mezereum or guaiac.

Another tropical family, the Anacardiaceæ, to which belongs the cashew nut, is represented with us by a single genus, but that the important one, *Rhus*.

Three of the species are harmless plants enough, the familiar sumacs, known especially for the brilliant scarlet of their autumnal foliage, and still more for the dense pointed (flame-shaped) clusters of their red, woolly, acid berries. The plants are throughout strongly astringent, the berries combining with the tannic a flavoring of citric acid, whence their use medicinally as refrigerants.

Rhus venenata, an erect shrub, resembling somewhat in aspect and foliage the foregoing species, is the justly dreaded poison sumac, or poison dog-wood of our swamps, while a more common and almost equally poisonous plant of the same genus, the poison ivy, or poison oak (R. toxicodendron), is a climber; most of us, if we have lived in the country, have made its acquaintance unpleasantly at some time in our lives. Poisoning the skin by contact, these plants reveal active and possibly medicinal properties that have not been thoroughly investigated, but undoubtedly entitle them to the place they hold in our materia medica.

In the buck-thorn family we find also one plant of reputed value, the New Jersey tea, or red-root (Ceanothus Americana).

The vine family furnishes but one plant of known medicinal virtue—the Virginian creeper, or American ivy, with which we are all familiar.

The Celastraceæ are represented by two species of euonymus—one a large shrub, the wahoo, one of the few plants that are commonly gathered in our State for export, the other a trailing plant, the strawberry-bush—both characterized by the scarlet inner covering of the seed, which is disclosed on the ripening of the fruit by the splitting of its outer integument. Another representative of the order, exhibiting the same peculiarity in a still more striking manner, since the fruit itself, before bursting, is of a rich orange color, is the highly ornamental shrubby bitter-sweet, Celastrus scandens, not to be confounded with the true bitter-sweet, Solanum dulcamara.

The small family of Polygalaceæ affords one important drug—senega, a herbaceous plant, having nothing very characteristic in its appearance. Five other species of the genus Polygala are found in the State, two of which, at least, are reputed medicinal.

The extensive family of Leguminosæ—the bean family—in these high latitudes at least, is one in which we do not look for very active medicinal properties. The wild indigo (Baptisia tinctoria), a low, shrubby plant, very abundant in unreclaimed lands, is mentioned as laxative and vulnerary, and the rather ornamental Tephrosia Virginiana (goat's-rue), has obtained a place in the U. S. Dispensatory, more on the merits of its foreign congeners perhaps than on its own. The P. piscatoria, for example, is employed frequently by the Pacific Islanders for poisoning fish, and has been used even for criminal purposes.

Scarcely belonging, properly, to the Leguminosæ, yet included by botanists in that natural order, is one really valuable medicinal plant, the wild senna, Cassia Marilandica, corresponding closely in sensible and medicinal properties with the senna of commerce.

The rose family is one of unusual interest. It is not enough that it gives us, under a hundred forms that vie with one another in queenly beauty, the flower whose title to pre-eminence among all that grace our gardens none dare dispute; it makes a flower garden once a year at least of the very orchards, and as cherry, and plum, and peach, and pear, and apple, and quince come successively into bloom, we know not whether most to admire the lavishness of coloring in the general effect, or the delicacy of shading, and the perfection of form and finish in each individual blossom, and it reserves still its more substantial gifts of the ripened fruit to distribute them through the long season from strawberries and cherries to peaches and apples. What fruits worth having, indeed, would remain to us dwellers in the temperate zone, were we deprived of all we owe to this one family? Grapes, indeed, and huckleberries, cranberries, currants, gooseberries—little else worth mentioning. Is the order less generous to the physician? Ask him whether he finds any astringent more useful than blackberry root—whether any other tonic can exactly replace wild cherry bark—what better substitute he can find for ipecac than our own gillenia, and he will, perhaps, himself mention, in addition, the cherry laurel. He might add to the list, from our indigenous plants, the astringents, Spiræa tomentosa (hardhack), agrimony (A. Eupatoria) and water avens geum rivale, and he would not have exhausted the subject.

Recent price lists of fluid extracts mention Penthorum sedoides, one of the stone-crop family, as a drug newly on trial—a common semi-aquatic weed which has heretofore concealed its merits very carefully.

The American alum root, Heuchera Americana, another astringent, represents a more important, but closely allied family, the Saxifragaceæ, to which belongs the hydrangea, as also the "syringa" or mock-orange of our gardens, and perhaps likewise the genus ribes, including the currants and gooseberries.

A tree which blossoms in October, just as it is losing its leaves for the winter, perfecting its seed the succeeding season, is an anomaly for which natural selection should be called upon to give some plausible account. Such a tree is the witch-hazel, Hamamelis Virginica, the only representative in our State of its family—a small one. Although not included in the list of the U. S. P., the witch-hazel has undoubtedly important medicinal virtues, and the proprietary preparation, known as Pond's extract, has an imn sale throughout the country.

The family of the evening primrose is not noted for any rem able activity of medicinal properties. I only mention as of pc ble interest from this cause two of our native plants, the w evening primrose of the fields, conspicuous in summer and fall the pure yellow of its large spiked flowers, and the greater willo herb, Epilobium angustifolium—the "fire weed" of norther Michigan, whose profusion of purple blossoms covers over with mantle of rich coloring the black nakedness of the newly cleared land.

Umbelliferous plants are more often useful than ornamental—although when I call to mind the delicately cut foliage of even such common plants in the family as the parsley, carrot and giant fennel, I repent already of having made a statement so sweepingly invidious. Plants of this order are generally recognized at a glance by their peculiar form of inflorescence, but they are not so easily discriminated one from another, and as many of them are fatal and rapid poisons, all should be looked upon alike with suspicion until their harmlessness is certified by a proficient. Accidental poisoning is very frequent from mistakes with regard to these plants.

Many umbelliferous plants are simply aromatic, the fruit generally yielding some characteristic essential oil. Such are the several species of Angelica and Heracleum (cow-parsnip), the sweet cicely (Osmorrhiza), of which we have two species, and sanicle or black snake-root (Sanicula Marilandica).

Among the poisonous plants of the family indigenous to Michigan are the cow-bane, Archemora rigida, and closely resembling this in appearance, the water parsnip, Sium lineare (and S. angustifolium), the water-hemlocks, Cicuta maculata and C. bulbifera, fool's-parsley, Conioselinum Canadense. These are not commonly used medicinally, although two of them, the Sium lin. and Cicuta mac., are among the components of Kerr's dysentery "specific."

Sparingly introduced among us is the officinal hemlock, the conium of the pharmacopœia—a medicine that would be more valuable were its effects more uniform, and its preparations less liable to deterioration.

Very closely allied to the umbelliferæ are the aralias, which are also aromatic and reputed otherwise medicinal. Four of them are native, A. nudicaulis, wild sarsaparilla, A. racemosa, spikenard, A. hispida, wild elder, and A. quinquefolia, called also panax, the ginseng which holds so important a place in the materia medica of the Chinese.

The dogwoods, Cornaceæ, are valuable tonics and antiperiodics; one of them distinguished as the flowering dogwood is placed, indeed, upon the primary lists of the U. S. P. Its flowers are in reality no more conspicuous than those of its congeners, but the compact clusters, which appear in early spring, are surrounded by an ample four-leaved involucre, creamy-white, which has all the appearance of an ordinary flower. The C. sericea is the kinnikinik of the aborigines, used as a substitute for tobacco.

The large natural order, Rubiaceæ, which in the tropics produces Peruvian bark and madder and coffee, is represented in our latitude by a few plants only, and those of comparatively little interest.

Besides the galiums, of which we have a long list—we may mention the button-ball, Cephalanthus occidentalis, as a tonic, and the pretty creeping partridge-berry, Mitchella repens, one of the ingredients of the mother's cordial, by which labors are believed to be made less difficult.

A few plants of the honeysuckle family must be just mentioned —the familiar elder, Sambucus Canadensis, the horse gentian, Triosteum perfoliatum, the bush honeysuckle, Diervilla trifida, and the high bush cranberry, Viburnum Opulus, in cultivation known as the snow-ball bush. Viburnum prunifolium, of greater value, probably, than all the rest, I think is not found in Michigan, although it must come close to our southern border.

[To be Continued.]

The San Francisco journals do not like the criticism upon Dr. Toland's lectures on "Surgery," published in the December number of the *Chicago Medical Journal and Examiner.*

Acute Chorea following Scarlet Fever.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY JUDSON BRADLEY, M. D.

Mary Ann B——, aged four years came down with scarlet fever August 21st, 1877. She had contracted the disease from a brother who had just passed through a mild form of the same fever. On the evening of August 22d, the scarlet rash was out all over the child's body, but had a peculiar punctated appearance. The child also had sore throat; hot, dry skin; with anorexia and thirst, in fact all the appearances of a sufferer from scarlet fever. The fever was treated with potassæ chlor., tinct. ferri chlor. and quiniæ sulph.

The patient was nearly convalescent, when at my daily visit on August 31st, I found a great deal of nervous excitement with constant jactitation and increased temperature. The bowels were moderately relaxed, and the kidneys were performing their functions well. At this visit I ordered chloral hydrate and potassii bromidum. These at first controlled the restlessness, but the high temperature remained. After two days the mixture of chloral and brom. potass. failed to control the motions at all. The jactitation had increased in severity, and now had developed into a well marked chorea. By the advice of Dr. E. L. Shurly, who saw the case with me, I now gave hyosciamus and cannabis indica extracts in full doses to correspond with the age of the child. These drugs also failed to give the relief we confidently expected. Still feeling that the abnormal muscular movements ought if possible to be controlled, as the strength of the child was failing fast, it was decided at a second consultation to give calabar bean; accordingly I gave drop doses of the fluid extract of the bean, from a sample kindly furnished me by Messrs. Parke, Davis & Co., from their laboratory in this city, and found to my great joy that by the exhibition of this drug I could control the choreic movements. I gave my dose about once in three hours, but suspended its exhibition when the child was quiet and slept. This treatment was continued from the 5th until 22d of September inclusive, when the choreic movements, which had been growing less and less daily, had ceased entirely. Meantime alimentation was not neglected. The child was given beef tea, chicken broth, milk and quinine (quinine in such adynamic cases is more a food than a medicine), when the milk did not digest I gave pepsin with good results.

During all the time that the chorea was present there was more or less increase of heat, the temperature ranging from 99° to 105° Fahr. The pulse rate was from 100 to 130 beats per minute, though seldom reaching 130. During this attack of chorea, diarrhœa was persistent; of a bilious character, and caused, no doubt, by the muscular contractions of the abdomen. All drugs that would interfere with the digestion of the milk (which constituted the great bulk of the diet) were carefully avoided.

My note of September 28th reads: "Convalescence now seems fairly established. The child has a good appetite, and would begin to walk but for an abscess that is forming on about the middle third of the right thigh." This abscess arose, no doubt, from impoverishment of the blood. I now ordered ferri lact. and continued the quiniæ sulph. When the abscess had pointed, I lanced it. It then healed readily. From this time (October 5th) the child improved rapidly. The color came back to the cheeks and the child began to walk. By October 20th the child-patient was entirely well, to the great gratification of the parents and anxious friends. I have reported at so much length on this case because I believe it to be quite unique in its inception.

Studies on Anatomy.

BY J. L. VALADE, NEWPORT, MICH.

No one this day contests the necessity for a physician to practice dissection on a human cadaver for the acquirement of necessary knowledge for the practice of his profession.

We do not live in that age in which they were put to the torch, who would dare touch a human body with a scalpel. This principle is maintained by all the world. But I am sorry to say that it was not always so.

History tells us that Democritus, a disciple of Pythagoras, was one of the first who studied comparative anatomy, and it is also said that he elevated himself above all the prejudices of his century, for daring to practice dissection on human bodies.

Hippocrates, himself, discusses the inconvenience of said practice, and decides in the negative. In consequence of which his anatomical knowledge was very imperfect.

Erasistratus and Herophilus, of the Alexandrian School, were the first, a few centuries before the Christian era, who practiced dissection on human cadavers. The government then accorded them, in consequence, the bodies of criminals. Therefore their labors became proficient, and rendered great service to our medical profession by modifying those errors that were in vogue up to that time.

Notwithstanding the admirable work of Galen on anatomy and physiology, it seems strange after all his energies and his recognized genius, that he did not habituate himself more to the practice of dissection.

The physicians of the Arabian School followed his example, and contributed nothing (as we know of) to the advancement of dissection on the human cadaver; and even did not show any clear point on physiology. It was only in the thirteenth century of our era that the study on the human subject was practiced.

Mondini, professor of the University of Bolonga, was (as we know) the first one who dared use his voice and his pen against the prejudices of the then existing laws, during the middle ages, on disection of human corpses.

In or about the year A. D. 1315, he publicly dissected two subjects, and afterwards wrote a work which remained classic in Italy for the period of 300 years.

Such practice, however, does not seem to have been generally followed until about the middle of the sixteenth century, when Vesalius, by profound and studious researches, demonstrated that the description given by Galen, and which had been considered perfect, contained a great many errors.

Some anatomists of renown, no less distinguished than Fallopius and Eustachius, undertook to defend the opinions of Galen, which caused a long and sage discussion, in which so many took part, that it brought to light a great many truths that were kept as a secret among those that took advantage of the credulity of the masses. But at the same time it contributed materially to the progress of the science of anatomy. And *hence* the triumph of Vesalius.

During the seventeenth century the science of anatomy made rapid progress. Those researches brought to light important discoveries, among which might be mentioned the discovery of the circulation by our immortal Harvey; the lymphatic system by Assels, Budbuk and Bartholin; the function of the lungs, and the connections of those organs with the heart by Malpighi and others.

During the eighteenth century anatomy and physiology made immense progress. Honor to the works of Bonet, of Valsalva, and above all, Morgagni. At about the commencement of this century, nearly all governments commenced to occupy themselves in planning modes to furnish cadavers to surgeons of ligitimate standing, and also to students under their control, for the advancement of the sciences of anatomy and physiology.

An edict, Art. 25, of the month of March, 1707, enjoined all magistrates and all directors of the hospitals to cause to be furnished to all professors of medicine cadavers for demonstration of anatomy and physiology, to teach their students in operative surgery.—Limgart, Vol. 1st, page 255.

To-day in England, in the language of their statutes—George II., chapter 37—the judge, before whom a culprit is found guilty of murder with malice and forethought, must pronounce sentence immediately, if he is satisfied that said culprit is a murderer, unless circumstances there show that said murderer is not altogether guilty of the charges preferred against him; then in such cases he may defer the execution until the third day, and then and there he shall order that the dead body shall be delivered to surgeons, by them to be anatomized.

Here is a sentence of death where the judge says that the guilty one shall be conducted from the prison to the place of execution, and there he shall be hanged by the neck until he is dead, and afterward the body shall be dissected and anatomized for the benefit of medical students.

In France any persons that die in hospitals must be delivered over for dissection.

Even in Rome, under the paternal government of popes, the laws used to be the same. In fact, in all European nations, their laws are about the same.

In the United States the laws are not so severe, but the great number of strangers arriving from all parts of the world, tends to furnish a sufficient number of subjects to our medical schools.

Reports of Societies.

Calhoun County Medical Association.

The Calhoun County Medical Association met in the common council rooms of the city of Marshall on Tuesday, December 4th, 1877, the president, Dr. J. H. Montgomery, in the chair.

Dr. Amos Crosby, of Albion, was elected secretary *pro tem.*

Dr. Crosby read an essay on the "History and Etiology of Diphtheria." (This paper will appear elsewhere in the pages of the LANCET.—J. D. M.)

Dr. Cox, chairman of the Committee on Ethics and Grievances, read a report on ethics, brought out by resolutions referred to that committee at the previous meeting. As this report has been issued in pamphlet form by the Association, and can be obtained without doubt from the secretary on application, we will not insert it in the transactions.

The following resolution was however offered by the committee as a substitute for the preamble and resolutions referred to its consideration.—J. D. M.

"*Resolved*, That all persons practicing or advertising to practice a secret remedy or remedies, render themselves obnoxious to the code of medical ethics, to all philanthropic physicians, and to the best interests of society; and we hereby express our disapprobation of the course of such persons, and refuse to recognize them as physicians in regular standing, and will not allow the use of our names in favor of such secret practice; and it shall be deemed dishonorable to countenance or consult with them."

EDWARD COX,
O. S. PHELPS,
Committee.

Dr. J. H. Kellogg, of Battle Creek, read a paper on the "Anti-pyretic Treatment of Typhoid Fever," which contained an account of a remarkable epidemic of typhoid and typho-malarial fever which has prevailed in that section during the last few weeks. The paper called especial attention to the method of treament employed, which consisted almost wholly of anti-phlogistic remedies. Quinine in anti-pyretic doses was used in a few cases, but with so slight effect in diminishing the temperature that it was abandoned for affusion, as practiced by Dr. Currie, and the wet sheet-pack, as used by Dr. Flint, of New York. Sponge-baths, cool compresses and fomentations to the bowels, and ice to the head and spine, were also employed very assiduously. Other remedies were employed to meet special indications.

The analysis of the cases may be summarized as follows:

1. Whole number of cases, forty-six.
2. Average duration of the disease, fifteen days.
3. Longest duration, thirty days. Shortest, nine days.
4. Deaths, one.

The author of the paper thought that the vigorous anti-phlogistic measures employed secured the following advantages:

1. Shortened duration of the disease.
2. Amelioration of the sufferings of the patient.
3. Relief of sleeplessness.
4. Almost entire prevention of delirium, and the other symptoms involving the nervous system, characteristic of typhoid fever.
5. Greatly diminished mortality from the disease.

It was thought that the diminished mortality was not due to mildness of the affection in these particular cases, as the temperature rose in a number of instances to 107° F., and was 105° in the majority, in the intervals of treatment during the height of the disease. The one patient who died was so frail before taking the disease that his friends had grave fears that he would live but a short time.

Dr. O. S. Phelps, of Homer, read a paper entitled "Cystitis Caused by Enlarged Prostate." The Doctor clearly set forth in his paper the symptoms and pathology of this distressing and harassing disease. The principle point was, however, that cystitis was secondary to the hypertrophy, and could be prevented by early and frequent use of the catheter as a means of emptying the bladder. If the patient was not sure until after cystitis had commenced, then he advised washing out the viscus daily or twice daily, a procedure very easily accomplished "by using the simple and perfect apparatus devised by Dr. Van Buren, of New York," one of which he exhibited to the society.

Dr. O. C. Lyon, of Tekonsha, reported by letter an "Epidemic of Diphtheria" occurring within his observation. We copy it nearly verbatim:

"The epidemic of diphtheria in our vicinity commenced in the Intermediate Department of our High School, and the first case was that of our principal's child, aged six years. I was called to see it September 27th, and found that the patches had just made their appearance in the throat. I learned that the child had been complaining of feeling tired, feverish, and of loss of appetite for a week previous. I was loth to call it anything serious as I had seen no cases in the vicinity. Treatment: Gargle of tincture of iron and chlorate of potash, with good doses of quinine. I advised application of pork and pepper externally to the throat, and keeping in doors. 28th. I called, and found the boy out doors. I advised them to keep him in. They wished to take the child off on a visit, but I opposed it. The patient was apparently doing well; the patches were disappearing, and at 9 P. M. the father reported that he was sleeping nicely. At 11 P. M. I found the child suffering from laryngitis, with exudate reappearing in throat. The larynx gradually filled up and he died at 3 P. M., Sept. 29th.

"Case second was from the same department of school. A fragile, delicate girl aged ten. I found patches in throat and nasal passages. On the fourth day after, I pronounced the patient convalescent, but on the eleventh day I was called to see her, and found her suffering from great prostration, epistaxis and suppression of urine. I plugged the nostrils, but hemorrhage would ensue from gums, anywhere that the skin was broken. It seemed impossible to control it. The patient died on the twelfth day from exhaustion.

"Case third, in same family; boy eight years old. He got well apparently, but caught cold, and laryngitis with exudate ensued. I sent for council, and tried steam atomizer with sulpho-carbolate of soda. The patient died the second day after the attack of laryngitis supervened. Two other cases in the same family recovered. The house was small—one room and a bedroom only; no cellar, and situated on the bank of a pond.

"One other peculiar case was that of a girl ten years old. She had the largest amouut of exudate that I ever saw. Under same treatment she seemed to be getting well. On Saturday she sat up and walked around the room. On Sunday up all day; Monday, ate at table; Tuesday, everything apparently doing nicely, but at two o'clock that night I found her in a state of collapse; mind clear; no pulse at wrist; hands cold. She complained of pain in stomach, which felt like a hard ball. No reaction whatever took place and she died the next night.

In all, I treated twenty-two severe cases, and a great number of mild ones, with a loss of six patients. One died the third day from laryngitis. There was no appreciable fever and no apparent exudate. Treated him from the start with sulpho-carbolate of soda (both with steam atomizer and internally) and quinine. Three died the second week from laryngitis, and after the exudate from throat and tonsil had all disappeared. One died from collapse, the only symptom being pain in the stomach. One—the first case related—on the third day, as stated.

I have arrived at the following conclusions: I. All the cases not traceable to direct contagion were members of the same department in school. II. All persons visiting those afflicted were taken with the disease. III. Persons living even nearer than those attacked, not visiting the patients, escaped. IV. The first cases were malignant, and all the cases lost by me were those first attacked. Later the disease seemed to lose its virulence. V. The best preventive is sulphur, blown through a quill into the throat, with tonic doses of elixir quinine and iron, and a dose of quinine in water, at night. VI. No case of my own, or of the other sixteen cases reported by the other physicians, in which the larynx was invaded recovered. The homeopathic physician reported to me (being health officer of the village) seven cases with three deaths. The eclectic physician reported some eight cases with only one death. These cases were very mild, hardly any of them being confined to bed. He lost, however, four cases outside of the corporation.

The treatment that I found most successful was, sulphur blown into the throat; frequent gargles of hyposulphite of soda; quinine in water, with tincture of iron and chlorate of potash taken and gargled every alternate hour.

I have seen no good effects from the atomizer, or much from outward applications, although I always applied some counter-irritant.

There have been only two or three cases since last October.

The following is an abstract of the remarks made by Dr. Eward Swiss, of Athens, on the above report. He said: "In cases of diphtheria in which recovery is accomplished without medical interference, the exudation is superseded by a suppurative or ulcerative process. This may be taken as a guide for local treatment; and that method should be preserved which has a tendency to hasten the process, and at the same time do no injury to the parts affected. Caustics applied in solution, with a swab or in solid form, will accomplish this purpose wherever the membrane can be reached, but often so much injury is done to the tissues that we fear it more frequently injures than benefits the patient. Were it possible, by the procedure just mentioned, to remove the exudate without doing injury to subjacent points, the objection to its use would in part be done away with, but this is practically impossible. That mode of treatment, then, which will secure moisture to the throat, and surround it with a somewhat elevated temperature, will best meet the indication. The location of the disease is such that we cannot foment in the usual acceptation of the term, yet the application of warm vapor to the throat and air passages is a modified fomentation. If we cannot cut short the exudative process by mode of treatment, it will be the best means to aid in its early continuous removal. It seems to us worthy of trial in nearl cases; and we may further say, that not only a greater numb patients tolerate it, but more call for its administration than other treatment with which we are familiar. The stomach is disturbed than by applications with swab or pencil, and is cc quently in a better condition for the reception of food, a poin great importance in this disease. It is obvious that this treatı cannot meet all the indications liable to arise. When the r cavity is affected and becomes plugged up, washing it out with syringe, to remove accumulations, etc., is admissible, although should be done with great care, especially when the patient i immediate danger of suffocation.

"In cases where the obstruction reaches far down into th passages, and admits of no delay in treatment, we may use the bang with the hope that the exudation may be near its tern tion, but in those cases in which the patients breathe freely kind of interference should be avoided, and the warm vapor, n cated with some disinfecting substance, and administered wi 'Steam Atomizer,' should be depended upon. Tonics, suppoı measures and stimulants will frequently be necessary.

"Whether this mode of treatment will stand the test of ı extended use we cannot say, but we are satisfied that with us death-rate has been less with this than with any other treatı with which we are acquainted."

Dr. J. C. Hauxhurst read a paper on "The Absorption of I terious Gases." The Dr.'s paper was a very able and interes article, but I have been unable to obtain a copy.

Dr. J. H. Montgomery, the retiring president, then gav address on "The History of Medicine in Calhoun County the year 1835." The address abounded in numerous reminisce full of interest to all, and very much so to the older membeı the profession.

The following gentlemen were elected officers of the Associa for the year 1878:

President—Edward Cox, M. D., of Battle Creek.

1st Vice-President—Henry Van Ostrand, M. D., of Albion.

2d Vice-President—Henry L. Joy, M. D., of Marshall.

Secretary—Louis A. Foote, M. D., of Battle Creek.

Treasurer—O. S. Phelps, M. D., of Homer.

The Association adjourned to meet at Battle Creek, on the first Tuesday in March, 1878.

L. A. FOOTE, *Secretary*.

Michigan State Board of Health.

The regular quarterly meeting of this Board was held at Lansing, January 8, 1878. The following members were present: Drs. Kedzie, Lyster and Baker, Hon. Le Roy Parker and Rev. D. C. Jacokes.

Dr. Kedzie (President of the Board and chairman of the Committee on Special Sources of Danger to Life and Health) gave a brief statement of some interesting experiments which he had recently made in relation to the permeability of walls and clothing and the relation of these to the healthful conditions of houses and clothing.

Le Roy Parker read a report on a proposed amendment to a law requiring the transmission by the county clerks to the Secretary of State, of the names and postoffice addresses of coroners as well as those of other county officers now reported. The proposed amendment will enable the State Department and the Secretary of the State Board of Health to communicate with these officers, and to learn from them the number of sudden and violent deaths, and the causes of same, with a view to remove causes when possible. Mr. Parker stated that he had been in correspondence with the authorities of Massachusetts in regard to the recently amended laws of that State relative to coroners and coroners' juries, which seem to be much better than the law in this State. He was requested to continue his investigations and report at length.

He also read a report pointing out the fact that section 6852 of the Compiled Laws of 1871 makes it the duty of supervisors to prosecute householders and physicians for not giving notice of cases of diseases which endanger the public health. Sections 1734–5 point out the manner in which such notices shall be given. Mr. Parker and Dr. Baker were appointed a committee to draft a circular to supervisors of townships, pointing out their duties under this particular law. Mr. Parker was requested to draft an amendment to the present law which would require the health officers of cities and villages to prosecute, in the same manner as do supervisors in townships, for any neglect to give notice of contagious diseases.

The Secretary reported that, during the past quarter work had been done: on planning and mailing a circular to correspondents giving details of plan for making weekly reports of diseases; on distribution of postal blanks for the reports of diseases, and receiving and compiling the same when returned by correspondents; on planning, folding and directing the circulars and blanks for the annual reports of 1,224 clerks and 1,102 health officers throughout the State; on issuing blanks, stamped envelopes, etc., to meteorological observers for their monthly reports; the names and addresses of 800 health officers of townships, 28 health officers of cities, and 67 health officers of villages have been received; six or eight documents have been sent to each health officer so reported. [Most of these health officers have been appointed because of the past action of this Board. Many of them are physicians.] Work had also been done on the forthcoming annual report of the Board for the year 1877; and by the Secretary, on the vital statistics for different years, and on the registration report of births, marriages, and deaths, just printed. Books and instruments to the amount of $375 had been purchased and placed in the library. The usual correspondence of the office had also been kept up.

Drs. Kedzie and Baker were appointed a committee to revise the rules and regulations recommended by the State Board for adoption by local boards of health, with a view to the publication of a new edition.

On motion of Rev. Dr. Jacokes, Dr. Kedzie was requested to prepare a summary of his various papers on ventilation of buildings, the object being to have it published in pamphlet form for general distribution throughout the State.

A communication was received from Dr. Milton Chase, of Otsego, Allegan county, stating facts in regard to fattening hogs on refuse from slaughter-houses.

Dr. Baker presented a bill drawn by Dr. Folsom, of the Massachusetts State Board of Health, to prevent the pollution of streams by sewers, slaughter-houses, manufactories, etc. This bill was referred to Dr. Lyster (Committee on Drainage), who was requested to report thereon. The Secretary stated that diphtheria had been more prevalent than usual in this and other States, and suggested that the Board issue a circular on the subject. Dr. Hitchcock was requested to prepare such circular. The causes of diphtheria were thoroughly discussed, and the opinion seemed to prevail that sewer gas, dampness, and mold had much to do in causing it, although it is a contagious disease.

Dr. Kedzie made a brief report, giving an account of experiments and tests for detection of lead in tin utensils in common use, having examined quite a number of specimens. He found about three-fourths of all the specimens examined contained lead in considerable amount. These examinations were brought about by a communication from Dr. Edward Dorsch, of Monroe, Mich., which had been referred to Dr. Kedzie as Committee on Poisons, etc. Dr. Dorsch detailed some cases of lead poisoning from the use of tin utensils. The test which Dr. Kedzie gave for this adulteration is quite simple. Place a drop of nitric acid on the tin to be tested, and evaporate to dryness; then add a drop of iodide of potassium. If lead is present, there will be a yellow coloration. If it is not present the spot will remain white. Dr. Kedzie will examine the subject further and report at a future meeting.

A communication was received from the local board of health in the township of Minden, Sanilac county, stating their action for preventing the spread of glanders by killing and burying a horse affected with that disease, and that an action for damages had been commenced by the owner of the horse against the individual members of the board.

An interesting communication was read from Wm. F. Jenison, of Eagle, Clinton county, showing the advantage to farmers of securing good water and thorough drainage.

A communication was also received from A. Kehl, of Jackson county, asking a multitude of questions relative t age where low land lies in adjoining townships. Both communications were referred to Dr. Lyster.

Adjourned on Tuesday evening until April 9th.

Detroit Academy of Medicine.

NOVEMBER 13,

The President, Dr. Connor in the chair.

Dr. Tucker read a paper entitled "The Report of a Empyema," with remarks.

In the discussion which followed Dr. Cleland said that met several cases of empyema in his practice, in which aspiration or free incision was resorted to. He mentioned of a boy in whom it followed scarlet fever, and in whom t rator was first used, but without success; free incision w made, followed by recovery. The boy lived only fifteen however, after the operation. This patient had a great app meat during his illness, eating from a pound to a pound an at each meal.

In another case the pus discharged itself naturally, and recovered, although not without collapse of the lung on the side. He now has phthisis.

The third case was one of pleural serous effusion. The was aspirated several times. At the first operation eight at the second four ounces, and at the third three or four were drawn off. No further effusion took place, but the died within a year of consumption.

Dr. La Ferté mentioned several cases occurring in his tor's practice cured by free incisions.

Dr. Connor thought we did not have as large a propo such cases in our locality as they had in the East, and that sub-acute pleurisy were very rare.

Dr. Cleland exhibited a pair of obstetrical forceps of h invention, modified from Taylor's; a description of the inst will appear elsewhere in the pages of the LANCET.

Dr. Carstens thought as powerful traction could not be made with Dr. Cleland's instrument as with the straight-handled forceps, and that there would be a greater tendency to draw the head forward on the pubes.

Many of the gentlemen expressed themselves as favorably impressed with the instrument.

PREVAILING DISEASES.

Dr. Flinterman had met with diphtheria of very grave character complicating scarlet fever. He reported two fatal cases in which the illness was only of short duration, and during the day he had a case which he thought had only a few hours more to live.

The cause of death in the first case he ascribed to "acute anæmia," or rapid blood poisoning. In the second, and in the last case also, the larynx was the primary seat of the disease. They did not suggest to him tracheotomy, as in such malignant cases, whether that operation is performed or not, there is only one result—death.

He thought when scarlet fever was prevailing, that the Board of Health should see to the cleansing of school-rooms, etc., and, if necessary, close all the schools for a time.

Dr. Walker related three cases of gummy tumor of the soft palate, with destruction of the parts from ulceration, successfully treated with thirty-grain dôses of iodide of potassium three times a day. These doses caused considerable purging, which he thought might have had something to do with the cure. If these tumors were detected early and treated in this manner, he thought no loss of substance need occur.

Dr. Shurly spoke highly of the efficacy of this treatment. His plan was to commence with from fifteen to thirty grains of the iodide, three times a day, for four days, then to diminish the dose one-third for as many more, and so on until the ordinary dose was reached. In this way cure was generally accomplished in two or three weeks.

Dr. Tucker stated that Dr. Wagstaff, of London, gave a twenty-five-grain dose, well diluted, at bed-time, and with better results than with the large doses repeated several times a day.

Dr. Gilbert—The effect of iodide of potassium, as given by Drs. Walker and Tucker, is very suggestive. Its free exhibition in concentrated solution by the former and the nightly doses as given by the latter are not without a lesson. One thing is very evident, nothing short of reaching the tissues by internal medication can be of any use, mere local application being useless. The fact that moderate doses given at night, when absorption of the iodide would be facilitated, rapidly dissolve the morbid growths, negatives any argument in favor of frequent and concentrated doses in order to create gastric and intestine disturbances as if these disturbances in any way aided the cure. It is not then by any revulsive action on the bowels that cures are effected; if it were so, croton oil, elaterium, etc., might answer the same purpose, otherwise, we must attribute the good results of iodide of potassium to its direct action on the cells which compose the deeper structures of the tumors; hence, the need of diluting the iodide to such an extent, and to moderate its dose to such a degree as will most favorably secure its entrance into the fluids of the body with the least possible disturbance to the system.

With few exceptions the free dilution of soluble substances that enter the general circulation and pass out by the intestines, weakens their action, whereas, concentration of the same substances rather intensifies them. On the same principle, medicines such as antimony, arsenic, morphine, etc., which, if rapidly absorbed, are more active, are rendered less poisonons by concentration or are expelled from the stomach.

Dr. Connor had given 25 and 30-grain doses every four hours with the best results and without purging.

REPORT OF CASES, ETC.

Dr. Gilbert—"The case I wish to report may not be without interest: Mr. ——, age 68, of unusually active life and temperate habits, but a good liver; rather stout built, had been troubled with small abscesses in the right axilla. The day before the attack to which I wish to call your attention, I opened a small one that gave him considerable pain—pain out of all proportion to the operation; returning to the house on the following morning in the attempt to ascend a few steps he suddenly found himself unable to proceed further for want of power in left leg; the arm of same side participating in loss of power. His speech also became thick and indistinct. The attacks lasted five or ten minutes, repeating themselves in the first 24 hours about five times. He passed a quiet night with the exception of these brief attacks of semi-paralysis. During the second 24 hours, ending Tuesday morning, he had seven or eight attacks, these repeating themselves less frequently and severely till Thursday. There was no headache or marked pain anywhere. The pulse during this period was very slightly accelerated; temperature, normal; alvine and urinary evacuations were as frequent as usual. The tongue was clean and moist. The only unusual sensations were a rather confused mental state, and the unpleasant numbness of the affected members. The attack on Tuesday morning was the worst of all, the attempt at conversation being hesitating, and the intellect much clouded.

All the phenomena that could throw any light upon the nature of the case were of a negative character. The absence of any convulsive movements or distortions set aside diagnosis of epilepsy. During ten weeks after there was gradual improvement, though much fatigue caused a sense of weariness. Cathartics, the bromides and ergot at first, followed by strychnine and phosphorus, formed the treatment.

Dr. Walker exhibited Dr. Sayres' tripod, etc., for suspending and extending patients suffering from curvatures or other disease of the spinal column.

He had treated a number of cases of Potts' disease with the "plaster cuirass" and with very satisfactory results.

J. D. MUNSON, M. D., *Secretary.*

DECEMBER 25th, 1877.

The President, Dr. Connor, in the chair.

Dr. Munson read a paper on chorea. He laid particular stress on anæmia as being the principal cause of chorea, and held that the convulsive movements were due to irritation from malnutrition of motor regions of brain.

Dr. Bradley stated, as far as his experience went, calabar bean had yielded the best results in the treatment of chorea.

Dr. Connor—Virchow and Innerman have called attention to the fact, that the aorta is of an abnormally small size in many cases of chlorosis. At the time of puberty, when there is an increased need of blood in all parts of the body, the above is an important fact in reference to malnutrition of nerve cells. As far as incoördination of movements is concerned it may arise from a great variety of causes. It is often reflex, as in certain troubles of the semi-circular canals. Whether there are definite motor regions in the cortex of the brain is not positively known, but I believe that there are motor cells in the cord as well, which have to do with special movements of certain muscles. In chorea it may be supposed that any of these cells may be in an irritable condition. In the treatment good food is of the first importance.

REPORT OF CASES, ETC.

Dr. Noyes—"I wish to report a case which is of common occurrence. Within a few weeks I have had a very unpromising case of purulent ophthalmia in a young child under my care. It had been under treatment before I saw it. The cornea had undergone such changes in structure and shape from suppurative inflammation that I thought it lost. There was pus between its laminæ. I commenced to treat the case by applying mitigated nitrate of silver (one part of silver to three of nit. of potash) on the everted lids. I feel it my duty right here to protest against the use of a saturated solution of nitrate of silver in such a way as to reach the cornea. I agree on this point with Dr. Williams, of Boston, that it should be laid aside in such cases generally. Most cases can be managed with less dangerous remedies if seen early enough. First of all, cleanliness; then begin with mild lotions of borax, chloride of zinc, alum, or some simple astringent. If silver must be used, never allow it to touch the cornea in any case. I have always emphasized this point in my teachings in regard to this fact. To return to the case: Under the treatment made use of (and this is the important point in the case, viz: the wonderful recuperative powers of nature as seen in young children and illustrated in this case)—mitigated nitrate of silver to the everted granular lid, the cornea cleared up and all of the trouble that now remains is a slight nebulous condition of cornea which is rapidly disappearing.

Dr. Noyes also reported the following case: Last November I was called to Toledo to see in consultation a lady past the age of forty years who was suffering from chronic inflammatory glaucoma in the right eye. She had been sick in bed a number of weeks, and notwithstanding antiphlogistic treatment—leeching, atropine, etc.—had been judiciously applied by the attending physician, Dr. Coldham, the eye still presented all the objective symptoms of active glaucomatous inflammation. The subconjunctival veins were dilated and tortuous, and the organ felt under the lid like a marble ball, so great was the intraocular tension. No ophthalmoscopic view could be got of the fundus oculi, owing to the diffuse turbidity of the vitreous humor, and not a remnant of quantitative preception of light remained. Exacerbations of pain had been frequent and most excruciating, requiring the administration of morphine to afford relief. With slight dimness of vision the other eye presented little clusters of hemorrhagic spots in the retina, but the ophthalmoscope revealed no objective symptoms of a glaucomatous change in optic disc. The case was particularly interesting from the fact that it was complicated with a large aneurism of the arteria innominata. The aneurism, while it in my judgment serves to explain the hemorrhagic form of the disease, which is peculiarly dangerous, since it is far less favorably influenced by iridectomy, precluded the administration of any anæsthetic, and made any undue excitement extremely dangerous. Regarding restoration of vision as forlorn, I could, therefore, hope by reducing the intraocular tension, little else than relief from suffering. Without an anæsthetic I immediately essayed to perform iridectomy, but not being able to fasten to the iris with the forceps, only a paracentesis by a tolerably free opening was accomplished. This I advised to be opened from time to time as the case might require. I was called to see the case two or three times and found the tension of ball nearly normal, but the pain had been more or less persistent. At my third visit I noticed some pus mixed with aqueous humor, which was evacuated by again opening up the anterior chamber.

J. D. MUNSON, M. D., *Secretary.*

JANUARY 8th, 1878.

The president, Dr. Connor, in the chair.

Dr. Chapoton read a paper on the "Headaches of Syphilis," of which the following is an abstract:

"Few cases of syphilis present themselves in which there is not a history of occasional or frequent pains about the head, which arise either from local states of the part or from the general condition of the patient. This symptom may accordingly be arranged into four classes: 1. Cranial cephalodynia. 2. The encephalgia of the secondary stage. 3. Neuralgia of the cranial nerves. 4. The cephalalgia due to specific lesions of the brain or its membranes.

The first variety is the most common; the lesion being almost invariably in the osseous system. To this class belong the headaches arising from gummy tumors of the scalp or cranium; from marked periostitis or ostitis of the cranial bones; and the neuralgiform pains of the head, which can only be explained by theoretical pathological conditions of the bony system. The degree of the pain varies considerably; it may be so slight as to merely annoy the patient, or it may be of so acute a character that it is impossible for him to pass the brush through his hair. The treatment depends upon the nature of the lesion, whether it is an early or late symptom.

The headaches of the second variety differ essentially from the former or from those arising from the third cause, since they are not occasioned by any lesion of the cranial arch or neuralgia of its nerves; it is more general, occupying the whole head, and it is more internal, being situated in the brain substance. The character of the pain differs with the individuals and with these differences of character, we find four degrees of intensity. In the first, the pain is just sufficient to trouble the patient; with the second, the latter is in much the some state as one affected with severe sick-headache; with a third degree of pain the patient is obliged to leave everything aside, for his suffering is such that the slightest train of thought is impossible and he seeks every means and position to alleviate his condition. The fourth condition is rarely seen, and in a patient so suffering we behold the very acme of pain. In the latter three forms the general functions are greatly disturbed. In no syphilitic pains is the nightly exacerbation so marked as in these headaches. The attacks usually last from five to six hours and continue to return nightly, if the patient is without treatment, for a fortnight to a year. They may be intermittent or remittent. Mercury is *the* remedy.

Syphilitic neuralgia (the third class of headaches) must be distinguished from neuralgiform pains. The latter are much the more frequent, and are characterized by their vague character, indeterminate position and lack of focal points. They do not, moreover, follow the course of a nerve, nor are they limited by its ramifications. Specific neuralgia offers no marks by which it may be distinguished from ordinary neuralgia, unless we except the one made manifest by treatment, for it is wonderfully modified by a few doses of some mercurial preparation. The nerves usually affected are the superior branches of the fifth pair and the auricular and mastoid branches of the cervical plexus. In rarer cases, the occipital is the seat of the pain. The third branch of the fifth pair and the temporal possess almost a perfect immunity. Mercury is the remedy, although potassium iodide is strongly recommended.

The fourth class of headaches accompanies almost every lesion of specific origin to which the brain can be exposed. There is nothing peculiar to them, which can be of any value in diagnosticating the lesion, or in differentiating them from other symptomatic headaches, for this symptom is only too common in all lesions of the nervous centers. In consequence of its frequency, we should be very suspicious of any headache occurring in a patient, whom we know has had syphilis for any length of time, for it may be the ominous prodrome of some very severe lesion of the nervous system, whose manifestations may be manifold or may only consist of the constant trouble; *e. g.*, Gama's case.

Dr. Noyes remarked that Lewin, of Charity Hospital, Berlin, used bichloride of mercury hypodermically in such cases, and claimed it not only had greater curative effects used in that way, but that there were 50 per cent less relapses.

Dr. Walker—It is from these constant headaches, especially in the later stages of syphilis, that we are led to a diagnosis or to expectant treatment. He related several cases bearing upon this point, and thought that recovery was usually rapid after the patient was put upon large doses of iodide of potassium.

Dr. Cleland—A case that most forcibly recalls to my mind the necessity of looking for syphilis, is that of a lady whose social relations have always been above reproach. She consulted me for supra-orbital neuralgia of right side, which was very intense and nocturnal in character. I thought anti-malarial treatment appropriate, but it made no impression on the malady. One day she told me that about a year before she had had severe pain in the shin, and when that disappeared the one in the brow made its appearance. This led me to make a careful examination. I found that the nose had been ulcerated and the septum perforated, and an enlarged condition of the shin-bones. This case yielded to appropriate treatment. I might say, in this connection, that her husband died a few years ago with some obscure disease of the arteries.

The Dr. reported other cases of syphilitic cephalalgia which were at first obscure.

Dr. Yemans said that he had a case under treatment at the present time. It was masked at first by facial erysipelas, but now the pain in the head is intense, and there is also alopecia.

Dr. Chapoton—A young man, aged 22, came into St. Mary's suffering from great incoördination of lower extremities, loss of appetite and constipation of bowels. There was no ataxia, and no fever. Two and a half years ago he had a sore on the penis, but it was not followed by eruptions, pain or rheumatism. The present attack commenced three weeks before he came under my observation. He was dizzy on getting out of bed in the morning, which gradually grew worse, then the trouble with his limbs slowly came on. On the supposition that it was syphilitic, I gave him large doses of iodide of potassium. After the second day, he got so that he could walk without falling, but made no further progress. I then put him upon mercury, and he is slowly recovering.

Dr. Walker doubted whether the disease was of syphilitic origin, as there was no evidence of secondary trouble. Such symptoms caused by syphilis generally come on suddenly, especially muscular incoördination.

PREVAILING DISEASES.

Dr. Walker reported a series of cases of typhoid fever which occurred in a family who lived on the third floor of a building on Michigan avenue. He investigated the premises and found a very bad condition of the sewers, there being no stench-traps connected with them. It was to this cause he attributed the outbreak.

Dr. Cleland thought scarlet fever was assuming a more severe type than it did a few weeks ago. Whooping-cough is also prevailing; he had lost one case from lung complication. He also reported a case of rheumatism in a new-born babe. The second day after it was born it seemed extremely sensitive on being touched or moved, and it was discovered that its left wrist was much swollen. On the third day the mother was attacked with acute articular rheumatism, the left wrist and ankle of same side being the joints affected. Just before her confinement, four of her children had scarlet fever. I do not know whether the presence of scarlet fever germs had anything to do with the rheumatism or not. He also related a case of gonorrhœal rheumatism affecting the left ankle and right knee. It ran along a week, when the effusion into the knee-joint was so great that he thought best to aspirate it, which afforded the patient immediate relief; afterwards the joint was put up in a plaster-cast.

Dr. Noyes—Did he have any trouble with his eyes? Some years ago I had a case in which there was iritis at the same time. In regard to cases like Dr. Cleland's, if I have a case of gonorrhœal rheumatism, and there is evidence of stricture, I have always resorted to the use of dilatatives.

REPORT OF CASES, ETC.

Dr. Noyes—I wish merely to mention a case lately under observation, which I must believe to be quite unique. A servant girl came to my office, troubled with an eczematous disease of the meatus. Some one told her melted tallow would be good for it, and she had filled her ear with it, which she said made her almost crazy from pain. When I had succeeded in scooping out the plug of hardened tallow, I found the drum-head entirely destroyed, and the oscicles of the ear entirely detached. I have known of almost everything put into the ear, and have taken almost everything out of it, but could hardly believe any one would commit so foolhardy an act as this.

Dr. Noyes reported the following cases: I have now under treatment two healthy appearing young ladies from London, Canada, who consulted me on account of impairment of hearing in the right ear. Both cases are of long standing and the result of neglect of treatment at the proper time. There was no discharge; both have a chronic follicular disease of the pharynx. On examination I found the drum-head of right ear perforated in both cases. In one it was nearly or quite destroyed and hearing practically lost on that side; there was, also, in this case a hypertrophied tonsil on same side extending more than half across the throat. This I at once reduced with the tonsilitome. In the other case the perforation is quite small; this I am in hopes of curing by the use of Blake's paper dressing, a method of treatment which I reported at a previous meeting. Unfortunately, such cases are too often met with. There is no reason why physicians are not as culpable for neglect in treating otitis as they would be in cases of ophthalmitis, and yet we are constantly meeting with cases of all ages, and particularly of children with a horribly stinking discharge from the ears, allowed to go on without treatment till the drum has rotted away, and because, forsooth, the mother has been told, and by the family physician, to let it alone—the child would outgrow it. What could be greater heresy?

JAS. D. MUNSON, M. D., *Secretary.*

Dr. H. B. Baker gives the death rate of Lansing, Mich., as follows, at annual rate in 1,000: For August, 1877, 5.04; for September, 7.77; for October, 7.48; for November, 3.84; for December, 2.47.

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D.

Practice of Medicine.

MODIFICATIONS IN THE PERSPIRATORY SECRETION IN DISEASES OF THE SKIN.—(*L'Union Medicale*, Sept. 25th, 1877.)—M. Aubert related the results of his researches upon this subject before the French Association for the Advancement of Science, at its late meeting at Havre. To determine the normal secretion, he applies a piece of paper to the skin at the glandular orifices; the perspiration dampens the paper, but the mark remains invisible, until a brush wet with a solution of nitrate of silver is passed over it, which, acting upon the chloride of sodium in the secretion, leaves a violet dot upon the paper. By this means M. Aubert studied the modifications of the secretion in diseases of the skin; nævus, port-wine stains, icthyosis, erysipelas, scabies, lupus, favus, simple herpes, herpes circinatus, psoriasis, etc. In all cases, this general rule was verified, that all irritations of the skin completely suppressed the perspiration, and even when the irritation has disappeared, some time must pass before the secretion recommences. In all cicatricial tissue, there is a great destruction of the sudoral glands, but from those that remain, there flows an exaggerated secretion. E. A. C.

VARIOLA IN A FŒTUS OF SIX MONTHS.—(*L'Union Medicale*, July 24th, 1877.)—M. Boutteilier presented to the medical society of Rouen, a fœtus, to which a lady of thirty, vaccinated in her infancy, had given birth. The mother was attacked by variola on October 24th, 1876, during the course of her third pregnancy, and aborted on the 21st of the following December. The fœtus was covered by a general eruption, seated particularly upon the dorsal region, of fine umbilicated pustules. The case is remarkable from the space of time which seems to have passed between the epoch of invasion in the mother and the probable date in the fœtus. In connection with the case, M. Thierry made the following remarks: (1) Variola is rare in the fœtus of six months; it is usually in the eighth or ninth month that it appears. (2) The variolous pustules in the fœtus are few in number upon the face, while they may be confluent in the other regions of the body. (3) Relatively to the influence of the disease in the mother upon the aptitude which the child shall afterwards have to contract variola, observation teaches in a general manner, that the mother must contract the disease before the seventh month of her pregnancy, in order that the child may be refractory to it; after the eighth month, the same immunity is acquired by neither fœtus nor child. (4) The evolution of variola seems to take place more slowly during intra-uterine life than after birth, and this greater length of time seems to be occupied by the incubation, which can last for a month. In the thesis of Laurens (1871) is reported the case of a woman, who gave birth to a variolous child, forty-one days after having been in contact with a variolous patient, whilst she herself had not contracted the disease. The pustules upon the infant indicated the seventh to the tenth day of small-pox, so that we can here conclude that the period of incubation was at least thirty-one days. Finally, cases are on record of mothers, who had never had variola, giving birth to twin infants, one of whom was free from disease, whilst the other showed an unmistakable variolous eruption. For example, M. Chantreuil's case, reported in the *L'Union Medicale*, of Rouen, April 15th, 1877. E. A. C.

Picrate of Ammonium in Intermittent Fevers.—J. W. Snider, M. D. (*Ohio Medical Recorder*, November 1877), states that he has used the picrate of ammonium with uniform success in the treatment of intermittent fevers during the autumn just passed. Some of his cases had been treated unsuccessfully with arsenic and the alkaloids of bark. He gave to adults one grain of the picrate, twice each day, until six doses were taken, and after the lapse of a few days, repeated the dose, to make sure of complete success.

Physiology.

THE DIGESTIVE PROCESS IN THE STOMACH—ITS DURATION AND ITS CHANGES UNDER VARIOUS CONDITIONS.—Kretschy (*The Doctor*, Sep., 1877) reports the results of some careful observations on a case of gastric fistula. (1) It was found that the digestion of breakfast took five hours and a half, that the maximum of acidity was reached at the fourth hour, and that it then fell until within an hour and a half a neutral reaction was reached. The digestion of the mid-day meal lasted seven hours. The maximum acidity was reached at the sixth, and in the seventh a fall to neutrality took place. Even in the fifth hour numerous microscopic bands of muscular tissue were recognized and also starch granules. The evening digestion lasted from seven to eight hours. (2) On the day before the menses appeared there were decided fluctuations in the acid curve. On the day of their appearance a neutral reaction was never obtained the whole day. The evening digestion was not delayed. On their cessation, the normal acid curve at once returned. (3) The patient took three cubic centimeters of alcohol in one hundred of water to her dinner. This rendered the process slower. (4) Coffee at dinner lowered the acid curve and caused the neutral reaction to set in an hour later. (5) Pepsin, taken just before dinner, did not shorten the process. (6) Distilled water, taken moderately, exerted no acid reaction on the gastric juices. (7) Alcohol is converted into aldehyde in the stomach.

Therapeutics.

DISPOSAL OF ALCOHOL IN HUMAN BODIES.—(*Cin. Med. News*, Oct., 1877, Z. C. McElroy, M. D.)—Alcohol, in whatever way, or in combination with any other material, introduced into the human body, up to a certain point of saturation, undergoes in the main, so to speak, a process of "splitting up," by oxidation into various chemical compounds; not always the same in the same persons at different times, nor in different persons at the same or different times.

2. The most common is the formation of aldehyde, aldehydrous

acid, acetic acid and acetic ether, as well as carbonic acid and water, and perhaps other unstable compounds.

3. Beyond a certain point of saturation, more of it escapes by lungs, kidneys, etc., as alcohol, than under the point of saturation.

4. It is in no sense, of itself and by itself, a food in the same sense as wheat, bread, milk, etc.

5. It is not, in any sense, a "stimulant," and does not store up a mode of force in its material, which, by any chemical changes it may undergo in living bodies, adds anything to the sum of force available for the ordinary purposes of life.

6. Its primary effect is to suspend, or paralyze the vaso-motor tension of the arterioles and capillaries; with much probability this effect is due to the anæsthetic properties of aldehyde, one of the products of its oxidation in living bodies.

7. The action of alcohol, after vaso-motor paralysis of the arterioles and capillaries, is that of an anæsthetic, reducing temperature, lowering sensibility, deranging the automatic functions of voluntary and involuntary viscera and structures.

8. The more closely its effects are studied and the modes by which they are brought about, the less occasion is found for its therapeutic use.

9. Its use, as a medicine, is mainly to lessen arterial tension, thereby lightening the burden of the heart and limiting the speed of tissue metamorphosis, when such indications are to be fulfilled.

Pharmacy.

COMPOUND SYRUP OF PHOSPHATES.—Ernest C. Saunders recommends the following process:

1. Dissolve two hundred and forty grains of iron wire, No. 20, in three ounces by weight of syrupy phosphoric acid (sp. gr. 1.75), diluted with four fluid ounces of water, contained in a flask loosely stopped with tow. When all action has ceased, heat to the boiling point and filter through paper in a funnel with a long neck reaching to the bottom of a beaker containing a little syrup, which, floating on the iron solution, will prevent any oxidation.

2. Dissolve nine hundred and twenty-three grains of freshly

slaked lime in a mixture of nine and one-half ounces, by weight, of syrupy phosphoric acid and fourteen fluid ounces of water, and filter the solution.

3. Dissolve fifty-four grains of crystallized carbonate of sodium and seventy-two grains of carbonate of potassium in a mixture of one-half ounce, by weight, of syrupy phosphoric acid and one fluid ounce of water, and filter the solution.

4. Mix the three solutions and add water to bring the measure to twenty-eight fluid ounces; dissolve in it by the aid of heat three and one-fourth pounds of sugar and eighty-five grains of powdered cochineal. Strain while hot, and when cold add two fluid ounces of orange-flower water, and sufficient distilled water to make the whole measure sixty-four fluid ounces.

NEW REAGENT FOR GLUCOSE.—A modification of the copper test for sugar in the urine is proposed by A. Soldaini, as follows: Fifteen grains of precipitated carbonate of copper are dissolved in a solution prepared by dissolving four hundred and sixteen grains of carbonate of potassium in one thousand four hundred grains of water. The reagent thus prepared is reduced by glucose and lactose, but not by cane sugar, dextrin, starch paste, tartaric or uric acids, or by any of the constituents of normal urine. Tannic and formic acids however reduce it when heat is applied.

SYRUP OF PHOSPHATE OF IRON, QUINIA AND STRYCHNIA.—This syrup, which like the last one is a troublesome one to prepare by the formulas of the books, may be made without difficulty according to the same authority by the following process:

1. Prepare a solution of ferrous phosphate as for the compound syrup of phosphates above.

2. Precipitate the alkaloid quinia from six hundred and twenty-five grains of the sulphate by ammonia in the usual manner, and dissolve it, together with sixteen grains of strychnia in one-half ounce, by weight, of syrupy phosphoric acid and one fluid ounce of water.

3. Mix the solutions; make up the measure to ten fluid ounces, and add fifty-four fluid ounces of simple syrup. Each fluid drachm contains one grain each of ferrous phosphate and phosphate of quinia, and 1–32 grain of phosphate of strychnia.

New Metals.—Within the past year the discovery of three new metals has been reported. They have been named respectively Lavœsium, Davyum and Neptunium. The first, named in honor of Lavoisier, is said to occur in a number of minerals, especially in iron pyrites. It is described by its discoverer, M. Prat, as a malleable, fusible metal of a silvery white color, forming crystallizable colorless salts. Its spectrum is said to contain no less than 23 characteristic lines, but it is added that these exactly coincide with those of copper, which is almost incredible, if it is indeed a new element. Neptunium was obtained by K. Herrmann from the mineral columbite, and is to be referred to the tantalum group of metals. It will be remembered that the same chemist, a few years ago, reported a new element—ilmenium—which proved to be no new discovery.

Davyum was discovered by Kern in certain platinum residues, and is described as an extremely infusible metal, having a specific gravity of 9.385 at 25° C., and a probable atomic weight of about 150.

Carbolate of Iodine Inhalent of Dr. Percy Boulton.—

Tinct. iodinii co.	ʒj
Acid carbolic	M. vj.
Glycerine	℥j
Aq. pur	℥v

Mix. The solution soon becomes quite clear and colorless.—*L. C. Hogan in Chicago Pharmacist.*

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Triturations.

The *Medical Record*, December 1st, contains a well written and sensible article by Henry G. Piffard, M. D., of New York, on the use of "Certain Triturations," in which he compares the advantages of such over the solid form in which many pharmaceutical preparations are dispensed. In these triturations the drug is in a condition of extremely minute subdivision, in which condition, it is claimed that many drugs, considered insoluble, can be absorbed without undergoing solution; that those possessing irritating properties to the gastric mucous membrane, are less liable to exert this effect, and that the dose can be sensibly diminished as the drug in this form is more active. He recommends the homeopathic formulæ of the decimal and centesimal scales, as a convenient one for preparing these triturations, and states, that he has employed with satisfaction, mercury and its salts, iodide of sulphur, sulphide of calcium, ferrum redactum, etc., and suggests that many vegetable substances might with advantage be kept in these, forms, as morphine, codeine, elaterium, etc.

This article, written in a truly scientific spirit (which overlooks no source where a germ of truth may be found), gives "due credit to the homeopaths for their development of this class of pharmaceutical preparations, yet sees no reason why they should any longer have the monopoly of their use." It should stimulate inquiry in a similar direction, as, perchance, amongst the rubbish of this effete system of medicine, may be buried many grains of truth which might prove useful in the cause of legitimate science. We are apt to think that no good can come from such a source, and to discard as worthless really valuable suggestions coming from it. But this is a petty, illiberal spirit, unworthy of a true physician, who should be eager for truth in whatever garb presented, who should be willing to prize a fact wherever it originates.

H. A. C.

Legalized Prostitution and National Depopulation.

In a recent discussion before the Anthropological Society of Paris, it was shown that in Belgium, where the system of legalized prostitution is strictly enforced, marriage is becoming more and more rare. That prostitutes as a rule are barren. That concubines usually abort about the second month, from artificial means, and that the marriage relationship, therefore, is the only fruitful one, consequently that the countries in which the system of legalization has been adopted are becoming rapidly depopulated. These statements culled from an editorial in the *American Bi-Weekly* are followed by the reflections:

> "These facts seem at first to constitute only social problems, but it is manifest to the careful thinker that they underlie the very basis of national prosperity and growth; for even if scientists agree or disagree as to the advisability or necessity of legalizing prostitution, with the view of checking disease, both immediate and prospective, there is far beyond this question, the ultimate one of the effect of prostitution in the depopulation and destruction of a nation."

The issue taken in these remarks is a proper one, and if it had been shown that a legalized prostitution was the only element at the work of depopulation in those countries in which that system has been adopted, then the conclusion reached "that such a system must be fatal to national increase" would be a just one. But the premises for such a conclusion are still debatable. It has not been shown that this is the only element at the work of depopulation; but on the contrary it is a well-known fact that in countries where legalization has not been adopted, there are conditions existing which are checking the normal increase of population in as great a ratio as in France, where it appears that it is "being diminished at the rate of five hundred thousand every year," and it has not been shown that these same conditions do not exist in the countries referred to. But granting for argument's sake that the premises are correct, it would still be a question whether in the face of the awful facts confronting us regarding the spread of syphilis and the fearful sufferings, present and prospective, entailed upon its victims and their progeny, it would not be for the best welfare of a nation to adopt the system of legalization, and accept the alternative of a lessening population, provided it accomplished all that its advocates claim for it, in restraining the spread of this dreadful scourge. Whether, in a word, it would not be better to choose a diminishing birth-rate rather than a national invalidism.

There are many sides to this question which need to be considered; there are issues involved which deeply interest every lover of his kind, but the subject is still one of great perplexity, needing the light of more facts to illume it. We can only wait and watch in the true scientific spirit, forming no conclusions until the facts, by the lamp of reason, irresistibly point to truth. H. A. C.

Memoranda.

The University of Edinburgh during this winter has 2,252 students; medicine 922, arts 919, law 347, divinity 64.

The Glasgow *Medical Journal* has been transformed from a quarterly, into a monthly of 48 pages each issue. It is edited by Dr. Joseph Coats. In its new form we doubt not that it will serve the profession even better than in the past.

The students in Glasgow University this year number 1,967, of which 455 are medical.

The *Toledo Medical Journal* is to be enlarged to 40 pages monthly during 1878. The editors have done their work with more than average ability and success. We wish them many years of increasing prosperity.

Prof. Edward W. Jenks, of Detroit, has been elected honorary member of the Cincinnati Obstetrical Society.—*Toledo Medical Journal, Dec., 1877.*

Prof. P. S. Connor, M. D., of Cincinnati, Ohio, has been appointed Lecturer on Surgery at Dartmouth Medical School.

Harvard Medical School now requires a *bona fide* preliminary examination of all applicants for admission who do not possess degrees in letters or science from a recognized college.

The Supreme Court of Alabama has decided that "a physician may be required to give expert testimony in a civil or criminal suit without being paid for his testimony as a professional opinion, and upon refusal to testify may be punished as for contempt." A similar decision has been lately rendered in Indiana.

Wm. Wood & Co. announce a monthly serial on "Studies in Pathological Anatomy," by Dr. Francis Delafield. It will be octavo in form, containing from two to four full-page lithographic plates in tint and color and explanatory of text. Price five dollars per year, or fifty cents a part.

Dr. Arnott asserts that beer has a peculiar psychological action on the organism, developing a low grade of depression in all cases. Statistics indicate that most suicides following inebriety occur among beer drinkers. Thus beer and suicide seem to have the relation of cause and effect.

A circulating Surgical Instrument Association, on the same plan as a circulating library, has been organized in London. Thus persons who have not the means or inclination to purchase, can procure the use of any instrument on paying five dollars per year. Certainly this is a better plan than that which many pursue, of borrowing from one's neighbor and not returning.

Dr. Jas. G. Hyndman assumes full editorial control of the *Cincinnati Clinic*, from which Dr. Roberts Bartholomew has retired after one year's labor.

Dr. Galt has retired from the *Louisville Medical News*, and Dr. L. P. Yandell, jr., takes his place. If possible, we shall expect the *News* to be better than ever.

MacMillan & Co. announce a new medical journal to be known as the *Brain*. Its editors are Dr. J. C. Bucknill, Dr. J. Crichton Browne, Dr. Hughlings Jackson and Dr. David Ferrier. If these gentlemen put their several brains into their journal, it will at once attain a position and success such as few journals ever possess.

The Toledo School of Medicine opens the second Tuesday in April, 1878, and continues sixteen weeks. Its object is to take rank with the spring courses as given in most medical colleges. We doubt not that our friends will do excellent work in this direction. Ohio, with its seven regular medical colleges, might possibly have furnished sufficient training without this one. But we seem to have been mistaken. The more the livelier—if not better.

The *Virginia Medical Monthly* and *Richmond and Louisville Medical Monthly* have given us excellent precepts on editorial brotherly love. But after all, the natural man will occasionally give expression to a practice hardly at unison with the precepts. Medical editors like other men are inclined to resent personal injuries. When smitten on one cheek they rarely turn the other to the smiter. The temptation to use the fist or boot in returning the blow is too great for ordinary resistance.

The *Archives of Clinical Surgery* thinks that its periscope takes the lead. "No other journal has yet attempted the undertaking of presenting an analysis of current medical literature by responsible and able collaborators, that work being generally done in a very careless manner." It makes one exception in behalf of the *Boston Medical and Surgical Journal.* All we have to say is that we do not think our brother editor could have looked over his exchanges, or if so, then he does not have the same exchange list that comes to us. Of his collaborators we had already concluded that they were figure-heads, more for ornament than use. Still as the editor is satisfied, we are content. Self-complacency is a comfortable state.

The *Michigan Medical News* is a new semi-monthly medical journal published at Detroit for one dollar a year. It contains twelve pages each issue and is edited by Drs. J. H. Beech, Wm. Brodie, Wm. Parmenter, A. Hazlewood, E. S. Dunster, Jas. C. Wilson, D. W. C. Wade and H. R. Mills; managing editor, Dr. J. J. Mulheron, our fellow-worker of last year. Long may it thrive to enrich its proprietors, to promote professional activity and universal good feeling.

Dr. Thomas Dwight has resigned his position as chief editor of the *Boston Medical and Surgical Journal*, and is succeeded by Dr. Collins Warren.

The *Pacific Medical Journal*, January, 1878, has been studying the advertising pages of an eastern journal that rates its annual circulation at 300,000 copies. He specifies eleven different advertisements that he terms "pure unadulterated quackery."

A hospital for diseases of the rectum has been established in New York City.

Oxygen, common air and other gases, hitherto regarded as incompressible, have been liquefied.

Henry Daniel Ruhmkorff, the inventor of the famous Ruhmkorff coil, died in Paris, December 20th, 1877.

The twenty universities of northern Germany cost the country about two million dollars yearly.

Of the thirty-two physicians in the French Chamber of Deputies, all but two are Republicans.

The late Dr. Edward H. Clarke, of Boston, left his medical library to the Boston Medical Library Association.

Prof. F. H. Hamilton, M. D. (*Archives of Clinical Surgery*, January 15th, 1878), says that for all the charities and prisons under the charge of the Commissioners of Public Charities and Correction, of New York City, the medicines and liquors cost for 1876, $40,892 one-fourth of which was for liquors. There, as elsewhere, it is more difficult to get good food in proper quantity than good medicines. The public should be taught the relatively greater importance of nutriment.

Prof. E. R. Peaslee, M. D., of New York City, died suddenly on January 19th, from pneumonia. As a teacher of medicine or surgery he has been well known for many years, being connected at different times with Bowdoin Medical School, Dartmouth Medical School, Albany Medical College and Bellevue Hospital Medical College. As an author he is perhaps best known by the present generation of physicians through his work on "Ovarian Tumors." But his numerous articles before various medical societies and in medical journals have rendered his name and work a living force to a greater number of progressive students of modern medicine. His connection with hospitals was ever to the advantage of all interested and so to the profession. His manly integrity, his persistent devotion to the profession during a life of far more than average length, and his characteristic industry, have secured for him the highest tributes from a wide circle of appreciative acquaintances and friends. Who among his students will rise up to do his work and exert his influence?

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

THE ELEMENTS OF THERAPEUTICS; A CLINICAL GUIDE TO THE ACTION OF MEDICINES. By Dr. C. Bing, Professor of Pharmacology in the University of Bonn. Translated from the fifth German edition, and edited with additions in conformity with the British and American Pharmacopœias, by Edward G. Sparks, M. A., M. B. Cloth; pp. 347. Price, $2.00. New York: Wm. Wood & Co. 1878.

Dr. Bing is well known to the profession as a careful observer and skillful experimenter. The work before us has been extremely popular in Germany. The arrangement of the several articles described is very simple. Briefly stated, it is as follows: Medicines which depress nervous activity and those which excite the same; etherial oils, demulcent medicines, astringent, bitter and alkaline medicines; remedies promoting tissue growth, diathetic and antiseptic medicines; medicines which reduce fever, emetics, purgatives, diuretics and diaphoretics, caustics and mechanical remedies. Although each article is tersely treated, most of the demonstrated facts respecting it are clearly indicated. Of course many things are omitted, among the more important of these we notice the absence of cinchonidia and quinidia, extremely valuable alkaloids of the cinchona barks, and extensively used in this country as substitutes for quinia. It is, on the whole, more trustworthy than the average text-book. In fact, there is little in it that should be neglected by the medical student. We regret that such a work was not available during our own student days. Medical practitioners will prefer larger and more exhaustive works, but under-graduates may thank the author and publishers that they may learn what is required of them without a labor so Herculean.

L. C.

1. OVARIOTOMY BY ENUCLEATION. By Julius F. Miner, M. D. Paper; pp. 10.
2. THE MECHANISM OF JOINTS. By Harrison Allen, M. D. Paper; pp. 7.
3. ADDRESS ON THE PROGRESS OF MEDICAL EDUCATION IN THE UNITED STATES. By N. S. Davis, M. D. Paper; pp. 23.

These are all reprints from the Transactions of the International Medical Congress. The first is a fair statement of the author's well-known method of enucleating ovarian tumors. The second is an abstract of a more elaborate study which the author intends to publish hereafter.

The last is a comprehensive sketch of the growth of medical colleges during the first century of the republic. Incidentally, Dr. Davis suggests that medical societies should fix both the standard of preliminary and professional education necessary for young men to attain before entering their ranks, and enforce this standard by appointing the necessary tribunals, and thus leave the colleges to their legitimate work of imparting instruction. In this case the latter would speedily adjust themselves to the actual educational needs of the profession. Dr. Davis does not agree with those who would compel every young man who desires to practice among sparse populations to become an adept in Latin or Greek, nor would he discourage the ambitious poor young man and foster the indolent weakly one by copying the five to seven years of professional collegiate study from the institutions of the old world. Nor does he think that a panacea for our ills will be found in a National or State universities with professors salaried out of public funds. The patronage of either the State or National governments in this country in the regulation and support of medical schools would simply fill the lobbies of our legislative bodies with the log-rolling satellites of every "issue" and "policy" of the day, transform the professorships of our colleges into political sinecures, and the colleges themselves into the footballs of politicians. With all its defects he believes that our system of medical college instruction has developed in strict consonance with the spirit of a free and enlightened people, a body of medical men as enlightened, enterprising, industrious and self-sacrificing, as faithful to the interests of the people and animated by as noble an *esprit de corps*, as is to be found in any country. L. C.

TRANSACTIONS OF THE CANADIAN MEDICAL ASSOCIATION, 1877. Paper; pp. 244.

This volume opens with an address by the President, Dr. Wm. H. Hingston. After discussing various subjects, such as medical legislation, education, synthesis in medicine, state medicine, legislation in health matters, insanity, and union with the American Medical Association, he gives an elaborate consideration to the subject of fœticide. In all there is a commendable vein of intelligent common-sense not always present in such addresses.

Dr. Geo. Ross gives an abstract of all the important papers published in Canada during the past year. Dr. G. Fulton gives an account of certain new remedies as salicylic acid, jaborandi, eucalyptus globulus, dialyzed iron, coca, viburnum prunifolium and amyl nitrite. Dr. R. P. Howard gives a satisfactory report of Canadian medical literature during the past year. Before the medical section Dr. J. Workman read an excellent paper on "Crime and Insanity;" Dr. E. Homibrooke a paper on "Plea of Insanity in Courts of Law;" Dr. R. P. Howard on "Two Cases of Stenosis of the Tricuspid Orifice, with observations;" Dr. Geo. Ross, a paper on "Typical Case of Addison's Disease;" Dr. John Bell, a paper on "Case of Progressive Pernicious Anæmia;" Dr. A. Proudfoot, a paper on "A Case of Supposed Gummy Tumor of the Brain;" Dr. J. Workman, a paper on "The Use of Large Doses of Acetate of Lead in Hemorrhages." The doses recommended are from half a drachm to two drachms—repeating in an hour or two if necessary. He gives an excellent report of this practice.

Dr. A. B. Larocque has a paper on vital statistics.

Before the surgical section Dr. W. Canniff read a paper on the "Treatment of Various Wounds;" Dr. E. Robillard, a paper on "Ovariotomy," as he had seen the operation done in Europe; Dr. E. H. Trewholme, a paper on "Vesico-vaginal Fistula;" Dr. Frank Buller reports a couple of interesting cases of apparent "Embolism of the Arteria Centralis Retina." Dr. A. Alt gives an account of the "Origin and Development of the Epithelial Tumors of the Anterior Third of the Eye-ball," based upon a personal examination of twelve eyes. From this study he concludes that, "The first beginning of an epithelial tumor is a localized hyperplasia of pre-existing cells. This hyperplasia acting like a foreign substance keeps up a constant irritation of the underlying tissue, which leads to inflammation and destruction of the latter, and enables the epithelial cells to invade it. Whilst this is going on the mother-tissue is transformed into a uniform mass of spindle-shaped cells, between which numerous round cells are scattered. The epithelium grows into this mother-tissue in the shape of cylinders, which, later on, by branching off, form secondary and tertiary cylinders and so on. The growing of the epithelial cylinders is due to the proliferation of the epithelial cells, but not to that alone. The formation of round cell cylinders and their partial transformation into epitheloid cells shows that the connective tissue itself acts in the formation of epithelium."

Dr. R. A. Reeve has a paper on "Optical Defects," and Dr. G. G. Fenwick on "Excision of the Knee-joint." This is well illustrated, and really one of the most valuable papers in the book. On the whole this volume is the best that we have seen coming from Canada, and speaks well for the association. L. C.

A TREATISE ON ACOLOGY AND THERAPEUTICS, with some of the most prominent principles and rules of Chemical and Mechanical Pharmacy. By J. G. Westmoreland, M. D., Professor of Materia Medica and Therapeutics in Atlanta Medical College. Cloth; pp. 391. Atlanta, Ga.: Plantation Publishing Co. 1873.

It is rather late to notice a work of this sort. Since the date of publication many excellent works on the same subject have been issued. The past five years have added much to our positive knowledge of the various subjects discussed. All this, of necessity, is absent from the work before us. As with all writers on this subject, the author presents a classification more or less differen from others. It seems to us that, as in skin diseases, so here, to much stress is placed upon classification and nomenclature. W think the classification here presented rather artificial and stilte and so difficult to remember. Generally as good an account rendered of each article as was possible at the time at which it was prepared. With many articles of the materia medica this account is still, in the main, correct. Still we see no reason why this volume should be preferred by others than the professor's own students to several books on the same topic since published.

L. C.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA AT ITS TWENTY-EIGHTH ANNUAL SESSION. Paper; pp. 400. Philadelphia. 1877.

The volume opens with an address by the President, Dr. R. B. Mowry, upon "A comparison of the old theory and the new theory of the so-called physical forces." Dr. John Curwin makes an appeal for the insane poor—that they should be provided with all the means for their most successful treatment. Dr. S. B. Kieffer in his obstetrical address discusses "Puerperal Convulsions." His view of their pathology is as follows: "The albuminuria and urea in the blood, though extremely exhausting on the one hand and toxic on the other, are not the result ordinarily in the puerperal condition of cortical granulations of the kidneys, but of congestion, which, again, however, is not a disease inherent in the kidneys, but symptomatic of morbid forces behind and beyond them; and that, hence, albuminuria is *incidental* simply to those conditions which favor puerperal convulsions rather than their cause. Again, the factors which lead to these convulsions are predisposing, mediate and immediate. Among predisposing causes are temperament, social and domestic habits, and, especially, uterine diseases. Among the mediate causes are spinocerebral irritation and exhaustion with their necessary consequences, viz., congestion or atonicity of the kidneys, ptyalism, constipation, diarrhœa and irregular nervous sensibility. The immediate causes are either turgescence of the capillaries of the brain or passive engorgement of the sinuses, intensified by either mental or muscular action.

The address on surgery, by H. Lenox Hodge, treats of a variety of topics, as "Healing of Wounds," "Accurate Means of Measuring the Lower Extremities," "Ether *versus* Chloroform," "Subcutaneous Osteotomy," "Neurotomy," "Reflex Epilepsy," "Abdominal Section in Cases of Extra-uterine Fœtation," "Gastrotomy," "Abdominal Section in Cases of Intussusception," "Extirpation of the Kidney and Spleen," "Excision of the Lower end of the Rectum," "Excision of the Sacrum," "Fibrous Tumors of the Uterus," and "Ovarian Tumors."

Dr. John Curwin gives an address on "Mental Disorders," and Dr. B. Lee on "Hygiene." Dr. P. D. Keyser, in a very carefully prepared article, calls attention to the inflammatory diseases of the eye caused by defects in refraction and accommodation. The remaining articles are, "Diagnosis of Psoas Abscess," by Dr. B. Lee; "Fracture of the Upper Third of the Ulna, Accompanied by Dislocation Forward of the Head of the Radius," by Dr. O. Hallis; "Urethral Fistula Treated by Means of the Elastic Ligature," by Dr. J. H. Packard; and the "Metric System," by Dr. Hugh Hamilton. The rest of the volume is occupied by the reports of the various county societies. L. C.

THE THIRD VOLUME OF JOINT DOCUMENTS OF THE STATE O MICHIGAN FOR 1876.

This volume includes the reports of the Commissioner of Insu ance, the Superintendent of Public Instruction, the Reports of t Attorney-General, Sheriffs and County Superintendents, and a annual abstract of statistical information relative to the insan deaf, dumb and blind. In his report to the Superintendent Public Instruction, President Angel congratulates the people Michigan that the Faculty of Medicine and Surgery have remain true to the University in opposition to the wishes of a considerab number of the medical profession. We are further told that t criticisms of the profession upon the Ann Arbor plan of furnishi medical education to students of two schools has not diminish the respect and esteem in which the University is held by the ci zens of this and other States. In short, the critics in the medic profession have failed to accomplish anything by their labor love, in seeking to keep the medical profession pure at one of its fountains. The entire report suggests food for careful thought by not only every doctor, but every citizen of Michigan. The same may be said of the whole report of the different public schools of the State.

THIRD ANNUAL REPORT OF THE EXECUTIVE COMMITTEE OF THE ASYLUM AT WALNUT HILL, Hartford, Conn. Paper; pp. 19. Hartford: Lockwood & Co. 1877.

From this we learn that on October 1, 1877, the above corporation opened an asylum home for the treatment of inebriates and opium cases. All the arrangements for the best meals of such have been provided, and Dr. T. D. Crothers appointed superintendent. This asylum has legal power to control patients. We wish there were a similar institution in our own State as there are drunkards in numbers sufficient to fill one. Besides a law should be enacted so that habitual drunkards might be treated as the insane so far as the law is concerned. L. C.

TRANSACTIONS OF THE TWENTY-SECOND ANNUAL SESSION OF THE MICHIGAN DENTAL ASSOCIATION. Paper; pp. 88. Toledo, O.: Ranson & Randolph. 1877.

Besides the minutes of the meeting this pamphlet contains a variety of excellent papers and discussions upon the various questions relating to the dental profession. The dentists of Michigan are evidently wide-awake and are very proud of their school at Ann Arbor, supported at the expense of the State. The report is handsomely gotten up.

ANNUAL REPORT OF THE SURGEON-GENERAL, U. S. A. 1877.

Owing to a deficiency in the clerical force of the Pension Department, the work is at present more than a year and a quarter behind hand. It is certainly discreditable to the nation that the just claims of soldiers cannot even be considered for a year and a quarter after the application is made. Were Congressmen to have their salaries retained for a year and a half after they were due, then they might possibly consider some of the principles of a real reform—an honest government.

One thousand books and two thousand pamphlets have been added to the library during the year.

The catalogue of original papers in medical journals and transactions has been completed to date. We hope that Congress will authorize its speedy publication.

Excision of the Knee-Joint. By Geo. E. Fenwick, M. D. Reprinted from Transactions of Canada Medical Association. Paper; pp. 24.

This paper is really a report of thirteen cases of excision of knee-joint. Ten of the cases were operated upon by Dr. Fenwick, and are illustrated by plates. These latter materially enhance the value of the article. The shortening of the limbs varied from 1½ inches to 4½. All the cases recovered except one. In one case there was no union of bones, and the limb was finally amputated.

Proceedings of the Teachers' Institute of the County of Philadelphia, Pa., for 1876. Paper; pp. 36.

Annual Report of the Pennsylvania Free Dispensary for Skin Diseases. Paper; pp. 12. Philadelphia. 1877.

Clinical Lecture on Aphasia. By L. P. Yandell, Jr., M. Reprint from the *Louisville Medical Journal.* Paper; pp. 1877.

Report on Veratrum Viride—Its physiological effects and therapeutic uses. By Jno. S. Lynch, M. D. Paper; pp. 8. Reprinted from Trans. Med. and Chirurgical Faculty of Maryland. 1877.

Michigan State Agricultural College Catalogue. 1877. Gives evidence of continued prosperity and enhanced usefulness.

A Case of Intra-Thoracic Cancer. By J. H. Pooley, M. D. Reprinted from the *Ohio Medical and Surgical Journal.* Paper; pp. 8. 1877.

The Localization of Diseased Action in the Œsophagus. By Harrison Allen, M. D. Reprint from the *Philadelphia Medical Times.* Paper; pp. 8. 1877.

THE DETROIT LANCET

VOL. I. MARCH, 1878. No. 3.

Original Communications.

Ultimate Results in Surgery.

PAPER READ BEFORE THE LIVINGSTONE COUNTY MEDICAL SOCIETY BY THEO. A. M'GRAW, M. D., PROFESSOR OF SURGERY IN DETROIT MEDICAL COLLEGE.

It occurred to me on receiving your kind and flattering invitation, that I could not do better than to call your attention to some of the more remote effects, both of disease and treatment. The tendency of practice is to banish from our thoughts, cases which no longer require our active aid. The pressing anxieties of the moment absorb our attention. The well man is supplanted in our mind by the present invalid. Families change their medical advisers or move entirely away from the places in which they have lived for many years, so that it is often by no means easy to watch cases to their ultimate results. All things, therefore, conspire to make the practitioner eager to achieve immediate success, and careless of results which only the far distant future may reveal. And yet it is the final event of disease which must determine the real value of treatment. It would be of no service, for instance, to heal a fistula if, as is believed by many, its cure would cause tubercular deposit in the lungs or degeneration of the liver. Nor would it be good surgery to save a thigh, shattered by a conical bullet, if its salvation cost the patient too large a share of his reserve vitality, and make him a mere wreck of a man, incapable of enjoying life. Not only do the ultimate results of practice show the effects of treatment and determine its value; they also solve many questions of pathology, and indicate the relation of diseases one to another. Thus it is now well known that long continued suppurations induce degenerations of the kidneys, lungs, and other internal organs, a fact which is of interest, not only as elucidating certain pathological points in connection with those organs, but also as determining the value of that conservative treatment, which would allow such suppurations to continue until nature chose to stop them. I do not hesitate to say, therefore, that no medical man can afford to confine his attention to the immediate event of any disease, but he must, to keep pace with the times, be ever watchful of the more distant results of morbid action. It will be my object then to-day, to illustrate this idea by examples in that branch of our profession with which I am most familiar, and I shall think it but fair that you in return shall draw from the stores of your experience and relate such cases as may have a bearing, *pro* or *contra*, upon the subject.

There is one surgical field in which all general practitioners of medicine must sometimes labor. The subject of fractures is perhaps the most thoroughly studied of any in the medical science, and yet it is strange how many important facts are omitted from our text books which have a direct and practical bearing upon the treatment of broken bones. The effects of injuries upon the growth of bones have been carefully studied by Ollier. His experiments have determined that the injury of a long bone in a young subject may either stimulate or retard its growth according to the distance of the injured spot from the epiphysis. If the femur of one of the lower animals is broken at the epiphysis, the growth of the bone is impaired, but if the shaft is fractured at a little distance from the epiphysis, the afflux of blood to the injured part and its neighborhood will stimulate the cartilage, and the bone will grow longer than its fellow. The truth of this fact was oddly shown in the course of the discussion which arose at the session of the American Medical Association, held at Detroit a few years ago, as to whether a broken thigh bone could or could not heal without shortening. A young lad was introduced to prove the affirmative of the question, and it was found, on actual measurement, that the femur which had been broken, was the longer of the two. The curious part of the affair was that none of the parties to the discussion seemed to recognize the true cause of this lengthening, and the effect of the fracture upon the growth of the bone was not even referred to. It is not necessary to enlarge upon all of the very important relations which these facts bear to practice, but I will call attention to one which concerns every practitioner on account of the very important bearing which it would have in suits for malpractice. If the ultimate effect of injuries at the epiphysis is to retard growth, and of injuries to the neighboring parts of bone to stimulate growth, we might safely assume that few men would have their lower limbs of equal length, for all children are continually falling and receiving manifold injuries which could hardly be equally and symmetrically apportioned to the two sides of the body. It might therefore be anticipated that the two sides would as a rule grow unequally. Measurements made on sixty uninjured subjects by Prof. Jarvis Wight, of Long Island College Hospital, would seem to confirm this assumption. According to his statements as published in the *Archives of Clinical Surgery*, for February, 1877, only ten out of the sixty had their femurs of equal length. In the other fifty, there were differences in length which ranged from one-eighth of an inch to one and three-eighths inches. If these measurements should offer a true index of these relative inequalities, it becomes evident that the measurement of a symmetrical limb can no longer be considered as an index of the amount of shortening which a bone suffers after fracture. I have myself seen one case of lateral curvature of the spine which was caused by a difference of one and a half inches in the length of the lower extremities. Now, in such cases of extreme inequality, if the longer extremity were broken, the result under very bad treatment might seem excellent, while a fracture of the shorter limb could not under the best of care exhibit any but an apparently bad result. Let physicians, therefore, who may be sued for undue shortening of broken bones, bear these facts carefully in mind as a means of defense. The predisposing causes of fracture have sometimes to be sought in pathological conditions which would seem to have but little if any relationship to the bone. Who would be disposed to connect insanity, for instance, with bony fragility? Physicians in charge of the insane, however, know this to be a fact, that in certain kinds of lunacy the bones become degenerated, and fracture on very slight applications of force. Such fractures cause little pain to the patients, but have been instrumental in sending certain keepers of the insane to prison on charge of wanton brutality.

The effects of treatment after fracture have even yet to be studied in the more distant results. That certain bones like the patella rarely unite by bony union is well known. It is not so well known that the long bones when broken may be bound together by callus sufficiently firm to answer the purposes of locomotion or other use without bony union ever taking place. I am convinced from some observations of my own that this not very infrequently happens. In such patients the tibia or femur may bear the weight of the body in walking, and answer every purpose, and yet remain tender to pressure in certain directions and be easily broken asunder by a slight exercise of force. Such callus may afterwards change to bone, or may, as the records of vessels of the old times show, be entirely absorbed under a severe attack of scurvy, leaving the fragments ununited and unsupported. The history of a fracture must therefore not be considered finished by the restoration of the function of the limb, but should be continued until the bone itself has been thoroughly restored.

In regard to other diseases and injuries of bone, the pathological conditions which remain after the cure of necrosis merit some attention. I have now under my care two patients who have served my class of students as illustrations of the uncertain nature of the cures which have been achieved in such cases. The first is a man thirty-six years of age, who, twenty years ago, had been operated on by Dr. E. M. Clark, of this city, for extensive disease of the left femur. The old scars, extending from the knee nearly half the length of the thigh, showed that the necrosis must have involved a large segment of the bone, while the retracted and deformed knee-joint gave evidence that it also had been the seat of serious inflammation. When he entered the Harper Hospital on October 29th, 1877, he was suffering extremely from pain in the knee and thigh. Large abscesses were discharging through old sinuses and the knee was swollen, puffy, and tender. The femur was found by the probe to be denuded for many inches. Since the operation by Dr. Clark he had, as he told me, been quite well until two months ago, when, without apparent cause, a renewed and destructive inflammation had arisen. He was very seriously ill with hectic fever and impending pyæmia. I accordingly amputated the thigh in its middle third, on November 2d, using an Esmarsch bandage to prevent hemorrhage, and Lyster's carbolic spray to render the stump antiseptic. The stump was dressed antiseptically, and the patient gradually recovered. An examination of the amputated member showed that the femur was necrosed from its middle to the knee, and that the knee-joint was quite disorganized and full of pus.

The second case was that of a young man at St. Mary's Hospital whom I myself had operated on seven years ago, removing nearly the whole of the left tibia on account of necrosis. He was then sixteen years of age. He recovered well with nearly complete regeneration of bone, and had since been able to walk and work without even limping. Venturing into the water sometime in August last, he got chilled, and began immediately to feel severe pain at the upper end of the left tibia. Suppuration took place under the periosteum and the bone became inflamed and exposed. I cut the overlying structures freely, removed the superficial layer of bone with a chisel and succeeded in preventing any further progress of the disease.

Now, such cases as these are very common, but are too little remarked in our systematic works. It is a matter of fact that no bone ever regains its pristine strength and vigor after necrosis. Years after its cure, patients, who by long immunity from suffering have been made forgetful and careless, will, on exposure to cold or injury, become seized with recurrent inflammations, to which they often succumb. This permanent infirmity of nutrition ought therefore always to be considered in those cases where the surgeon hesitates between an attempt at conservation and amputation, and to have its proper weight in deciding the question. It ought also to be insisted upon with the patient who recovers, in order that he may guard himself against the evil. Now, what is true of necrosis is equally true of chronic inflammations of the hip, knee, ankle and vertebra. Cases of recurrence are exceedingly common even after years of apparent cure.

In this connection, though true also of many other inflammations, it might not be out of place to mention those residuary abscesses which occur when a collection of pus, instead of discharging, becomes partially absorbed. The symptoms of suppuration then gradually disappear, the swelling ceases to fluctuate and gradually diminishes in size, and finally the parts cease to be tender. Such cases sometimes cause some mortification to the surgeon, who is supposed to have erred in diagnosis. Mr. Paget first called the attention of the profession to the true nature of these processes, which he remarked first in connection with an abscess of the tibia. When the fluid portions of pus are thus absorbed, there is left behind a cheesy residue which may cause trouble afterwards, either by undergoing absorption and causing tubercular deposits in internal organs or by exciting renewed inflammation and abscess. I have seen a number of such cases. One, for example, occurred around the hip joint of a young gentleman. That excellent physician, Dr. Armor, had diagnosticated an abscess. It never, however, "came to a head," and he was supposed by friends to have made a mistake in diagnosis. The hip remained swollen and deformed, and three years afterwards became the seat of abscess. A large quantity of cheesy matter was discharged, and the patient finally recovered. It is my belief that these residuary abscesses, far from being rare, are exceedingly common, not that large abscesses often entirely undergo this process, but that a cheesy residuum is often left behind after an abscess has healed, which in time causes renewed trouble. If this should prove true it might be well to inquire whether there is no way to ascertain the condition of the walls of healing sinuses and to remove such residua if present.

Many forms of inflammation and ulceration are maintained by the inability of patients to adopt the proper hygiene, and such cases become practically incurable, even though susceptible of temporary improvement. Most chronic ulcers of the leg belong to this category. It is not in the majority of cases difficult to cause them to heal. If the patients then will only never use their legs, they will stay healed, but as soon as they go to their accustomed work the old congestions return to be followed by the old ulcers. Now the treatment of chronic ulcers by strapping with adhesive plaster is very effectual if we look only at immediate results. In fact, in certain hospitals such cases are habitually brought before the classes with something of a flourish on the part of the surgeons who show how rapidly they may be made to heal. The graduates of such institutions are usually anxious on entering practice to show their skill in this particular line, and it is only after they have had to furnish the costly plaster dressing time and time again to the same pauper leg that they learn to recognize the pathological conditions which prevent these ulcers from being permanently cured. I do not hesitate to say from very considerable experience, that, except in those cases which originate in syphilis, chronic ulcers of the leg are practically incurable. Neither plaster strapping nor skin grafting, nor prolonged rest, nor any other treatment as yet discovered by surgeons will really cure the vast majority of them, if we mean by cure anything more than a temporary scarring over—if we mean in other words that the extremity is put in such a condition as to be used for the ordinary duties of life without again becoming inflamed and ulcerated. It is necessary to recognize this ultimate event of a chronic ulcer of the leg, both as a matter of prognosis and of treatment. We may turn our knowledge to account if we also recognize the frequency with which heredity appears as a factor in producing the disease. Children who are predisposed to it by inheritance ought to be taught trades which would permit them to work in a sitting posture. They might in this way escape a disease which would otherwise render them incapable of earning a livelihood.

Of other inflammations, those of the genital organs of both male and female may be mentioned as often causing persistent and deplorable pathological conditions. I do not think that the profession as a whole sufficiently realize the gravity of gonorrhea. There are very many physicians who seem to look upon it as a comparatively trivial malady which ought to get well in a few weeks. Unfortunately, the frequency with which the disease is simulated by a simple urethritis from which patients may speedily recover, encourages this belief in many of the laity as well as in medical men. Now it is my experience (and I have treated many patients according to the methods recommended by the best authorities) that a real resident gonorrhea produces about as much trouble as an attack of syphilis, and is often as difficult to cure. This is especially the case when occurring in scrofulous or syphilitic subjects. Its after effects, however, are often believed to arise from other causes, and its agency in producing permanent evil may be thus overlooked. To practitioners who do not deal much with such cases, a statement of the great number of people who have become thoroughly disabled, and who have even died from the ultimate results of gonorrhea, would seem incredible. Every hospital surgeon, however, can recall multitudes of such patients who have spent years of their lives in trying to cure strictures of the urethra, inflammations of the bladder, ureters and kidneys, fistulæ, degenerations of the testicle, chronic inflammations of the cornea, and even diseases of joints and general debility which have been the legitimate results of gonorrhea. So impressed have some medical men been with these facts regarding this disease, that they have not hesitated to express their opinion in very strong terms, and one distinguished physician of New York even went so far as to declare that gonorrhea was never thoroughly cured, and that many cases of sterility in women were to be explained by the existence of chronic metritis and salpingitis, which had been the result of contagion communicated by husbands who were suffering from gleet. Whatever may be the truth of this opinion, I know that in many cases the disease persists in spite of all treatment, and leads to many secondary maladies.

There can be no doubt that inflammations of the female genital organs are often the causes, immediate or remote, of barrenness. I have recently, however, noticed a statement in one of the medical journals to the effect that inflammation of the bowels, also, in female infants and children may interfere with development, and cause subsequent sterility. It had never before occurred to me, but I can readily understand how such results might happen from the pressure of false membranes on the uterus and its appendages. Other distant results of peritonitis, such as stricture of the intestine, etc., are too well understood to need mention, and yet I think that we do not sufficiently regard these possible events in the treatment of cases. The practitioner should never be content with getting patients up after such troubles, but should then use such means as we have, inadequate though they may be, to cause complete absorption of all effused lymph.

I cannot, in enumerating the events of inflammation, pass over the influence exercised by injuries and long continued or oft repeated irritations in producing morbid tumors. Whatever power we may ascribe to heredity or predisposition in producing new growths, it can not be denied, in the face of accumulated evidence, that local irritations, in perhaps the majority of cases, are responsible for their development. I have myself seen more than one fatty tumor which dated from a blow, in one case a melanotic sarcoma which sprang from extravasated venous blood, and many and many a cancer whose history led back with precision to an inflammatory beginning. This is in fact the common and almost invariable cause of epithelioma of the lower lip. So universally in the clinics of the Detroit Medical College have the questions in relation to the origin of such troubles elicited the story of the constantly repeated pressure of a pipe, that I have almost come to doubt their origin in any other way. I have, to be sure, seen a few cases which originated in a chop or other injury, but I doubt whether cancer of the lip was ever of frequent occurrence in the pre-tobacco days when there were no pipes to cause the necessary irritation. As regards other organs, Virchow has brought forward statistics which prove that those tissues which are the most exposed to injury and most liable to frequent fluctuations in vascularity are also most liable to primary cancer. Secondary cancer is, as every one knows, the result of infection from the primary nodule. If surgeons would only bear it in mind, and would perform their operations with the determination to destroy every seed and vestige of the disease, we would hear less complaint about the inadequacy of surgical operations in the treatment of this formidable malady. The whole matter of the origin of tumors and their connection with, and dependence upon, other maladies has yet to be investigated and determined by observation and experiment. I have had within the last three months two cases of ovariotomy which have suggested some problems regarding the growth of uterine fibroids. As sometimes happens in practice, the two cases were rare in their combination of disorders, and yet almost exactly similar. In both the right ovaries were changed into large cysts, each of about seven pounds weight. In both the left ovaries contained small cysts which made removal necessary, and in both the uteri were enlarged, containing intra-mural fibroids and subperitoneal pedunculated growths. I removed in the one case both ovaries and a pediculated fibroid as large as a small egg. This patient recovered. In the other, a patient sent to me by Dr. Brownel, of Utica, I removed the two ovaries but did not disturb the womb. This poor woman died at the end of the fourth day of nervous collapse. Now I have since been debating with myself upon the effects of ovariotomy, in such cases of this kind as recover, upon the uterine tumors. The removal of the ovaries would stop the monthly congestion, and ought, we would think, to be followed by atrophy of the womb. Would it therefore stop the growth of an ordinary uterine fibroid? This can only be determined by carefully watching the results of ovariotomy in suitable cases. The use of the clamp in ovariotomy serves to bind the uterus to the abdominal wall by a new ligament, namely, the transformed pedicle. The result of this in those women affected also with uterine fibromata, would be to prevent the womb from sinking into the pelvis, and we might suppose that even though the fibroids continued to grow, they would suffer less from irritation of the bladder and rectum than if the uterus were not thus supported.

I have, I fear, taken up too much of your valuable time in illustration of what is, after all, almost self-evident, that physicians should have no less regard for the ultimate than for the immediate effects of disease. There is hardly a malady to which the human race is subject, which, departing, does not leave behind some permanent reminders of its sojourn. Secondary diseases are, if anything, more numerous than primary, and if they attract less of our attention, it is, as I have said before, because our faculties are pre-occupied by present cares. The impatience of invalids demands immediate results, and the interests of the practitioner are unfortunately often furthered to a much greater extent by a present apparent success than by a wiser course of treatment which would have reference to distant, and, to the patient, unknown contingencies. In addressing you upon this subject, I have not thought to present anything new, but rather to excite discussion upon certain phases of the old and trite, and I shall be perfectly satisfied if I can find support for the views which I have advanced in the experience of members of this society.

Bright's Disease of the Kidneys—Its Main Characteristics and a History of Three Cases.

BY A. B. REYNOLDS, M. D., ORION, MICH.

My paper consists of a brief sketch of the principal characters of the disease, and a short history of three cases that lately came under my notice.

Bright's disease of the kidneys is one in which there is structural change of the kidney, and is generally accompanied by dropsy, albuminuria, and epithelial casts of the uriniferous tubes of the kidney, together with several constitutional disturbances due to the non-elimination of urinary principles.

It is called Bright's disease because Dr. Bright, of London, in the year 1827, was the first to discover that the condition of the kidney was generally characterized by the presence of albumen in the urine, and that the serous infiltration was only primary, and that the loss of albumen and the retention of urea produced a secondary effect which was generally the immediate cause of death.

We have the acute and chronic forms of the disease. The acute form most frequently occurs after scarlet fever, and occasionally after other exhaustive diseases. It generally ends in complete recovery, and rarely ever becomes chronic.

In the chronic form the morbid appearances show four different kinds of kidney, although they are by some supposed to be different stages of the same form, and two or more of the forms have been found in the same kidney. The four forms are: the large white kidney, cirrhotic kidney, fatty kidney, and waxy kidney. The large white kidney, so called from its color, sometimes reaches four times the normal size, the enlargement being in the cortical portion. The intertubular structure appears normal, but there is in the tubes an accumulation of disintegrated epithelium and exuded matter.

In the cirrhotic form the kidney, in some prolonged cases, has been known to weigh less than an ounce. In this kidney there is an abnormal production of the intertubular tissue, and this by pressure lessens the caliber of the tubes, and produces atrophy by pressure on the blood-vessels.

The fatty kidney is the largest of all four kinds, is of a yellowish color, and has a greasy feel. This form has epithelial cells filled with oil, and granules of fat within and between the tubes.

The waxy kidney may or may not be increased in size; it is dense and firm, and a cut surface presents a smooth, shiny appearance.

In the white and fatty kidney the disease is within the secretin tubes.

In the cirrhotic form the primary seat of disease is in the connective tissue.

In the waxy form the morbid material is first deposited in an around the walls of the vessels, and afterward in the surroundi tissues.

The immediate effects on the system of all four kinds of kidne are essentially the same.

The plugging of the tubes with disintegrated epithelium, gran lar matter, etc., and the destruction of the secreting structu where the tubes are denuded of their epithelium, and entire obl eration of some of the tubes, as in cirrhosis, leads to serious inte ference with the secreting function of the kidney, especially regards the elimination of urea, and hence we have uræmia.

The circulation is also interfered with by the pressure on the intertubular veins by the various deposits and by the distended tubes, and as a result of this pressure we have congestion of the veins and malpighian tufts, which prevents the transudation of water holding in solution the solid constituents of the urine, and allows the serum of the blood containing albumen to exude, which accounts for the presence of albumen in the urine.

The complications most liable to occur are œdema of the lungs, œdema of the glottis, muscular paralysis and amaurosis; other secondary affections are liable to be developed, as pericarditis, peritonitis, pleuritis, and meningitis—all of them serous inflammations.

The treatment of the disease has reference to dropsy, uræmia, and to supply the lost albumen.

Dropsy, when extensive, is generally relieved by hydrogogue cathartics and by paracentesis. Uræmic convulsions may be treated by opiates, chloral hydrate, etc. The diet had better be largely albuminous, even if it does produce large quantities of urea, as my observations have led me to believe that the danger in by far the majority of cases is from loss of albumen, and not from uræmia.

In treating complications reference must be had to the primary cause.

Hygienic measures must be strictly observed as in any other disease.

Case I.—Mrs. B., aged 51, came under notice April 28th, 1877. Had received an injury two months previous in left side, fracturing fifth and sixth ribs, and complained only of pain in that region. Physical exploration revealed pericardial murmur and enlarged precordia from pericardial effusion; urine free from albumen, stomach irritable, marked dyspnœa, but no œdema, and bowels as a rule constipated. No albumen could be found by chemical analysis until June 20th; then by using the microscope casts were found in abundance, the patient exhibiting great anxiety of mind continually, with increasing irritability of stomach; grew gradually weaker and died July 4th, without having had any convulsions. In this case the pericarditis was at first supposed to be the primary affection, and induced by the injury in that region; but slight œdema occurring, and finding a trace of albumen late in the disease, the microscope was used and casts found to exist in abundance. Now, had the microscope been used earlier, it would undoubtedly have proved Bright's disease to have existed throughout, the pericarditis only occurring secondarily as a complication, and in reality only a symptom of the original affection, which was probably of the cirrhotic form.

CASE II.—Mr. M., aged 48, came under treatment May 26th, 1877, and had then been suffering and confined to his bed most of the time for about two months. Found anasarca existing and dyspnœa slightly marked; physical exploration showed pericarditis with effusion, albumen abundant, and microscope showed pus cells and casts in abundance. He grew gradually weaker for two weeks, the anasarca and dyspnœa becoming distressing; diarrhea was developed, followed by increased purging, which continued till his death, on June 26th.

The *post-mortem* examination showed hydrothoria, hydropericardium, and lymph in right ventricle of the heart, producing thickening of tricuspid valve and cordæ tendinaxæ. The left kidney was found greatly atrophied, weighing only one ounce and a half, containing a calculus weighing one drachm (which was probably the source of the pus). The right kidney was twice the normal size, and showed a waxy appearance.

CASE III.—Mr. J., aged 28, of moral habits and native of Denmark, came to notice October 28th, 1877. Had then been confined to bed for about six weeks, from ascites and œdema of lower limbs; no serious inflammation existed, but was quite weak from the effect of drastic purgatives that had been used excessively; pulse feeble and respiration short from pressure of abdominal contents. The liver was about twice its normal size. Urine amber color, containing albumen in large quantities and a few casts. I put him on laxative and tonic remedies, bland diet, with six raw eggs every day in a little brandy. The appetite improved every day, but from pressure of fluid on stomach it could only accommodate a small quantity. Nov. 6th.—Performed paracentesis abdominis (as the pressure on the lungs now seriously interfered with respiration), and removed half a pailful of amber-colored liquid. Nov. 15th.—Albumen very abundant and a few casts and ascites. Dec. 1st.—Patient eats heartily and continues his six eggs every day; no febrile movement, but abdomen as full as ever, and anasarca exists to an alarming extent.

Continued the same treatment, and delayed second tapping from day to day, as the pressure on lungs did not seem to increase.

Dec. 15th.—Anasarca gone and œdema of lower limbs less, and abdomen measuring one inch less than on Dec. 1st. Albumen *still* abundant but *no casts.* Jan. 1st.—Œdema all gone, but still some ascites; walks or rides out every day when weather is suitable; appetite good and now discontinued eggs and brandy; albumen considerably less and no casts. Jan. 25th.—Ascites all gone, but abdomen slightly enlarged by the liver, which still remains large. Albumen nearly all gone, and patient is now apparently well, but complains of pain occasionally in the region of the liver.

The case was probably not one of Bright's disease proper, but the dropsy was probably caused by the derangement of liver. The kidney trouble may have been caused by pressure of abdominal contents on the venous return, or, more probably, was a waxy condition occurring secondarily to the liver affection.

Clinical Observations.

BY GEO. P. ANDREWS, M. D., PROFESSOR OF PRACTICE OF MEDICINE IN DETROIT MEDICAL COLLEGE.

INGROWING TOE-NAIL.—Case: A young man, a student, has suffered for two years from ingrowing nail of both great toes. The soft tissue on either side of the nail was much thickened, and along the inner edge ulceration and suppuration have existed for months. The parts were very tender, and only very loose shoes could be worn.

The problem to be solved in these cases is how to reduce the hyperæmia of the part and induce the absorption of the newly developed connective tissue. When these ends are attained, the nail will naturally assume a healthy condition. I believe the removal of the nail, either in part or altogether, to be quite unnecessary; indeed, to be absolutely bad treatment, often ineffectual in curing the disease. The key note in the treatment is the application of pressure, with such adjuncts as are ordinarily available for the relief of local inflammations, with ulceration. Acting upon this plan in the present case, after carefully bathing the parts with *hot* water, I applied a paste, made by moistening dry sulphate of quinia with mur. tr. iron, to the swollen and ulcerated surfaces, separating these from the nail by gently inserting lint, taking pains to press it to the bottom of the sulcus surrounding the root of the nail. Above this and covering also the soft tissues was laid a cylindrical compress, about a line and a half in diameter, and long enough to reach entirely around the insertion of the nail; then, with a bandage of soft, thin muslin—old handkerchief is good—one-half inch wide, the toe was enveloped from the distal extremity to the first joint, taking care to apply the bandage accurately, and so as to make pressure firm enough to reduce the circulation, but not entirely stop it. The patient was ordered to keep the house for a few days, and keep the leg horizontal as much as possible. The only dressing applied was carbolized oil. The bandage was renewed daily for a week, and then every second day. The iron and quinine paste was omitted after the tenth day, and the part kept moist with carbolized oil. The discharge had nearly ceased by the close of the second week. The bandaging was continued for five weeks, and then the patient, being a cadet, went to Philadelphia, and performed his duties at the Exhibition for a week, and returned none the worse for the strain, and since has experienced no trouble. The first application of the astringent is somewhat painful, but the pain is quite transient, and on removing the bandage the next day one is surprised to see how the angry, inflamed surfaces have become blanched, and the succulent tissues reduced. If, however, there is severe throbbing pain continuously after the bandaging, the astringent should be omitted and an evaporating lotion of sugar of lead or sulphate of zinc, with slight compression, substituted for a few days until the active hyperæmia is reduced, when the more active measures may be renewed. The quinine and iron, or iron alone, should be continued until the discharge has ceased, and the toe is nearly reduced to its normal size. Before discharging the patient, he should be instructed in the use of the bandage, and advised to continue its use for some weeks longer, and also to re-apply it if at any time a recurrence of the trouble threatens. While it hastens the cure to have the patient rest during the treatment, it will in moderately severe cases go on to a satisfactory termination while ordinary business is attended to if a thoroughly easy and *ventilated* shoe is worn.

I have yet to meet a case of this very painful affection which has failed to result in a complete cure under the above described treatment, and the length of time needed varies from four to eight weeks. The requisites to success are patience, skillfully graduated compression and an obedient subject.

PLACENTAL HYPERÆMIA.—Mrs. F., æt. 32, a healthy, well-developed Englishwoman, pregnant for the sixth time. First labor occurred at the seventh month of pregnancy, cause of premature birth not known. Child lived a few weeks. The four labors following were premature, occurring from the sixth to the eighth month, children dying *in utero* before labor set in, and preceded by the following symptoms: About the sixth month headache began, attended by a sense of weight and chilliness in the lower part of the abdomen, a feeling of apprehension and unrest, followed by diminution in the activity of the fœtus, until all motion had ceased, and then in a few days labor supervened and child was born dead.

Saw patient for the first time early in sixth pregnancy; directed her to notify me as soon as she noticed any untoward symptoms. Was called at the sixth month. Mrs. F. complained of headache, chilliness, and said "motion" had nearly ceased. Bled to eight ounces, head immediately relieved. At next visit was told that the child began to move soon after I left the previous day; all bad feelings gone. Left stringent orders that I should be notified at once of any recurrence of the symptoms. Was summoned for this reason at the eighth month; fœtal motions scarcely perceptible. Bled to six ounces; motions became stronger while blood was flowing. No further trouble occurred; patient was delivered at full term, after an easy labor, of a large, well-nourished, vigorous child.

Two years subsequently there was a miscarriage about the third month. Less than two years after became pregnant again, and went on normally to the sixth month, when the former troubles recurred, and were met by the lancet, with the happiest results. Slight disturbance was noticed at the eighth month, but only requiring laxatives and bromide of sodium. Patient went to term, and was happy in the birth of a healthy son.

I refer the cause of the untoward phenomena in this case to placental hyperæmia; the cause unknown. A recent writer states that poisonous materials accumulate in the blood of the pregnant woman, and this, by reflex nervous action, might exert an influence over the placental circulation, as well as cause other local engorgements. I think it may be possible that apprehension in the later pregnancies may have had something to do with the regularity of the recurrence of the symptoms.

I regard the bleeding as mainly efficient through the shock produced, stimulating the flagging vasory muscles, and thus equalizing the uterine circulation.

I may note that Dr. Morse Stewart, of this city, has related to me instances in his experience where venesection under similar circumstances had been successful, and that his success inclined me to a trial of the same.

Of course a careful discrimination should be made between these cases, where the phenomena are developed suddenly in previously healthy women, and an entirely different class where the mothers are cachectic, or poorly nourished, and where the signs of fœtal vitality gradually fade, and the ovum is at last cast off prematurely, showing marked signs of mal-nutrition. In this latter class our only hope lies in earnest effort to stimulate the mother's powers by every means possible.

PNEUMOTHORAX.—Mrs. L., æt. 22, two years ago, had an attack of pneumonia, probably croupous, from the description of symptoms given. She recovered fairly, though she did not entirely regain her strength. In the spring of 1877 she had a second attack, heralded by a slight hemorrhage. The history of the case leads me to suppose that this time the pneumonia was catarrhal, as there were not as active febrile symptoms and little or no rusty sputum. The fever was prolonged many weeks; indeed, I doubt whether the temperature was again normal for any length of time.

Her health was poor all through the summer, and the pulmonary trouble was aggravated by an endo-metritis, for which she was successfully treated by my colleague, Prof. Jenks, of this city. By his advice I was called to examine her about the middle of September, and found her with a temperature of 102°–103°, pulse 120, short respiration, constant harassing cough, raising both purulent and frothy sputa, great irritability of stomach and occasionally of bowels. Physical examination revealed, on percussion, dullness under left clavicle, tympanitic resonance on right side. Auscultation gave coarse and fine rales over most of left lung, and bronchial respiration at apex. Upper and posterior part of right lung respiratory sounds more bronchial than normal; not much mucus; no signs of cavity. From this time onward the patient failed steadily in every respect; dullness over left side extended. About December 1st, after a few days' respite, when she thought herself better, she was suddenly taken with a severe chill and dyspnœa, followed by increased fever. The whole left lung was dull on percussion, with bronchial respiration, and abundant fine and coarse mucous rales over the whole extent. After a few days the more acute symptoms passed by, but it was several weeks before the lung cleared up at all, and then only slightly, but the amount of purulent expectoration was greatly increased, as also was the frequence of the cough. Her strength failed apace, although to the last she was moved from her bed to the lounge, and up to within twelve hours of death there was not great dyspnœa.

Jan. 21st.—She was unusually feeble, but was, as usual, assisted from her bed to the next room, in the forenoon. After lying quietly for a short time, she called to her mother to raise her up. She appeared faint and breathless, and spoke feebly: "Mother, my heart has fallen down; I felt it—I can't breathe!" She became much cyanosed and continued faint, with labored, rapid breathing, but no pain. The exhaustion increased during the afternoon, though the blueness of the surface diminished. The respirations became shallower, and she gradually sank, and died easily soon after midnight, quite conscious to the last, saying that she "felt well, only so weak," and but a moment or two before the change trying to comfort her mother by some pleasantry. I did not see the patient for two days befor death, and am dependent on the mother's account for the e of the last day. Examining the body, the most noticeable was the disparity in size between the two sides of the thorax left bulging out, as if the seat of an enormous pleuritic effu the change being more marked, as that side had been r retracted than otherwise. Percussion gave full tympanitic r ance over the whole area of the left lung, where three days b there had been very marked dullness. A rupture of pulmo tissue undoubtedly took place at the time of the exclamation about the heart. The pressure from gradually accumul inspired air was finally sufficient to overwhelm the overburd and feeble heart, so that she died rather by asthenia than ap A *post-mortem* was not obtained.

I think that the pathological process from December 1st w diffuse catarrhal pneumonia, developed in connection wit preëxisting lesions; this terminated in purulent infiltration such weakening of the lung tissue by mal-nutrition that the of a superficial alveolus gave way, making a valvular opening the pleural cavity, through which with every respiration air forced, but prevented from returning, until the distension eq the lifting power of the respiratory muscles. The openin small, as was proved by the gradual supervention of the di sion, and consequently agonizing dyspnœa was escaped. I the extensive disease of the lung which existed, I question wh removal of the pneumo-thorax by aspiration would have aff even temporary relief; certainly it would have delayed the event for only a short time.

Civil Malpractice: Case.

BY STILES KENNEDY, M. D.

The case below is one in which suit was brought to recover for treating a fractured leg, defendant pleading want of cons ation. Out of fairness to the doctors first in the case, I must the reader to bear in mind that the evidence submitted is only of the *defendant* and his own witnesses. I propose to discuss the many points raised, with one exception, just as if the testimony was not questioned at all.

Elijah Travis, Defendant: My leg was broken September 12th, 1873, between eight and nine o'clock A. M., by a swinging log sixteen feet long, two feet in diameter at large end and eight inches at small end, that struck me. The doctors got there between two and three o'clock P. M. I was at Mr. Quick's, eight miles west of the village. They washed my leg and gave me chloroform. When I came out from influence of it, I found myself lying on the bed, with a long splint down my leg and fastened to the bedstead. My leg was straight and bandaged up, foot was straight with leg, was drawn firm and drawn down. There was pain in leg from break to the end of the foot, leg pained by spells, there was pain in heel and foot for some time after leg was set, no time between setting and second visit but what there was pain, heel was very painful, outside bandage covered leg all over including wound, no aperture left in bandage over wound, leg was fastened so I could not move. I am somewhat deaf, was so then, could not hear the doctors if they talked low, do not remember having any instructions left by the physicians relative to my treatment, I think they said something about being there in three or four days again. I am not scrofulous, nor subject to any hereditary disease.

L. Quick: I was present at my house when Travis' leg was set. He is my brother-in-law. Dr. B. administered chloroform and watched pulse at wrist, Dr. K. attended to the leg, I pulled on foot. When he got it to what he thought was the right place he called Dr. B's attention to it, Dr. B. said "that won't do" and appeared dissatisfied, then Dr. K. raised the knee and two of us pulled the foot, he slipped the bone down in a different position, Dr. B. put his hand on it and said it was all right, they then began near the ankle to bandage it and went upwards, when they came to the break they put a cloth on as they said to keep the bone in place, they wound the bandage up near to knee and pinned it, Dr. B. took the limb on his hands and Dr. K. bandaged it nearly to hip, they then put on extension splint and bandaged it on; splint was made of siding half inch thick, six inches wide, had two holes at top and two notches at bottom end, was marked out to fit leg by Dr. K and I trimmed it with knife; from knee to foot was four and a half inches in width, lower end of splint came four to six inche below foot, lower part of splint fastened to bedstead by bandage the foot was left inclined at an angle of 40°, the bandages were very tight, the wound was covered, leg was little if any swollen, and n other mark but one wound. Travis is small-boned, thin of flesh medium size, general good health. The doctors gave me some few orders how to manage him and some laudanum, no order left to pu water on limb or to loosen bandage if it pained him, I saw n probing of the wound, the wound was on inside of leg, opposite sea of fracture.

V. Hoyt was present all the time the doctors were at Quick house setting Travis' leg, the bone was not set down to its natura level, it stuck up one fourth of an inch, the lower piece, saw bot the doctors press down on the bones with the thumb, the bone di not go back to its natural place, it could not be pushed down, ca not say whether it sprung back or not, Dr. B. said "the bone badly broken," did not hear either of the doctors say "let it go, did not see any probing, they commenced bandaging around th foot, Dr. K. put a compress over the wound, no opening left i bandage, they were about fifteen minutes setting the bone.

Sept. 16th. Second visit. E. Travis: The doctors untied lim from bedstead and from splint near the foot, looked at it, said i was doing very well and tied it up again, bandage next to limb no removed, could not say that there was any examination of th wound at this time, there was considerable pain in ankle, spoke t doctors about it, they said it was caused by broken limb, there wa pain across the instep between first and second visit, I do not know that I called the doctors' attention to the pain in ankle, they measured my leg.

L. Quick: No one waited on patient but myself since last visit, since the leg was set no perceptible change in position or dressings, I was present at every visit the doctors made, I was the only one ever present when Travis' leg was dressed after first visit, at second visit they took off outside bandage and put it on again, no change made in position of foot, bandage around foot not loosened, do not know exactly in what manner bandages were around foot, both ends of bandage were fastened around splint and drawn tight, foot was on a line with leg, I asked Dr. B. when he would come again, he did not state when he would do so.

Third visit. Sept. 26. E. Travis: At this visit the doctors took off all the bandages and washed my leg, it had been running matter, was then, bandages had not been all removed since injury till now, upper end of lower fragment of tibia was in sight one quarter inch above surface and one quarter inch in length, the leg was somewhat swollen, I think I told the doctors that my ankle was bound too tight, think they took hold of bone with a pair of nippers, do not know that they made any examination of wound or fracture, position of leg the same, put bandage on the same except left a space for matter to discharge, cloths wet with carbolic acid and water, were put over the sores, bandage put on tight about ankle, cannot say how the bandage was put on around foot, discovered a black spot on heel and both sides of ankle and on instep, scarcely any feeling on top of foot, Dr. K. said "we have neglected this leg too long, I did not think the leg would get to running so soon, we should have been here before," they gave me some medicine, quinine and wine, pain in ankle continued about the same, the doctors said a bunch under my leg was the calf turned around.

L. Quick: Was present at third visit, they took splint off, the limb was smelling very strong and had for forty-eight hours, I found the leg had been bleeding, I sent word for the doctors to come out and they came, the bandage was full of matter, the leg looked red and inflamed, I do not think there was much swelling, calf of leg looked red like raw beef, Dr. K. said he did not think it would run so quick, they bathed leg well and bandaged it a little different, left an opening over wound, around ankle they were placed as before in the shape of a figure 8, I noticed that the bone of leg protruded, my instruction was to give him ease and quiet, laudanum if he did not rest good, Mr. Travis made complaint of pain about ankle, after the limb was set he complained, I do not recollect whether it pained him between second and third visits or not, bandages were as thick as before, saw bunch under calf of leg, the doctors' attention was not called to it at this time, was several visits afterwards, they said it was calf of leg crowded in, subsequently (between 7th and 19th December) a small piece of bone discharged from it, half-dozen small pieces of bone, some of them not as large as a grain of wheat, came out of the first wound during this treatment, the foot was swollen a little and the toes, I did not discover any sore on the foot or any black spots at this time, I can not state at what time complaint was made to the doctors about pain in leg and foot.

Fourth visit. Sept. 30th. E. Travis: Can't state positively whether they took off bandages or not, there was no working on ankle by the doctors, swelling in limb was about the same as on 26th, at this visit, or next one, they probed my wound, there were four or five sores on foot.

L. Quick: The doctors took off bandage, washed the limb and dressed with carbolic acid, bandages put on same as before, bandage about the ankle was tight, I made a sling like a V to rest the heel in and when they came they approved it, I noticed sore on heel at this time, did not notice any black spots till I saw the sores, I do not remember at what time I first saw the sores, there were sores on both ankles, heel and instep, I do not think the sores were one-quarter inch deep, I did not see any callus on foot, at this time Travis made complaint of numbness of foot, they changed splints at this time, I felt of Travis' foot every day, I had trouble to keep it from getting cold, it was cold to me, I cannot tell at which visit they changed the splint, complained of foot being cold after 26th, and foot was warmer after splint was changed, about this time a fire was made in stove near foot of bed, I do not know that patient complained to the doctors of pain in foot and ankle at any time before fourth visit, Dr. K. left the directions about taking care of patient and the sores, the short splint reached above knee and several inches below foot, four or five inches wide and one-half inch thick, there was at no time any change in color of the foot, the veins on foot were full and large.

Fifth visit. Oct. 3rd. E. Travis: After my foot was galled they put on a short splint, I am not certain when the splint was changed, at this visit I think flesh sloughed out of the sores leaving them size of a cent piece, doctors never said anything about the position of foot, it inclined forward all the time, when they took bandage off Dr. K. said "we have staid away too long," my leg was straight and foot kept in a swing, after the foot was galled they left off bandage, do not remember at which visit it was.

Sixth visit, Oct. 9th. Seventh visit, Oct. 13th. Eighth visit, Oct. 28. Nothing of special importance seems to have taken place except that the limb was bathed, dressed, and that the sores were healing, general health good, more or less suppuration every day from original wound, and one at seat of fracture, and one on outside of fracture, which has appeared since the setting.

Ninth visit, Nov. 10. E. Travis: I spoke to the doctors about being moved to my brother's, four miles across the country, they said I must not be moved on a wagon, that I must be carried on a litter, Dr. K. dressed my leg and said they might stand me on my head and the leg would not get out of place.

L. Quick: The doctors said we might move Travis on a litter, and I told them I would make one, it snowed a little afterward and we put the litter on bob-sled, on a wagon body with straw in it, we tied his foot to a studard to keep it from moving, nothing was said about the danger of moving him, Travis was moved Nov. 12th, I saw Dr. K. next day and told him that we had left Travis' leg in good shape, at this visit leg was bathed and dressed clean as they always did, they gave particular direction about sores which looked healing and healthy, small wound from which two pieces of bone came out had nearly stopped running, I do not think leg or splint was changed by moving.

Tenth visit, Dec. 7th. E. Travis: All the sores on foot were not healed up, the foot had no feeling on top, I could not move the ankle, the foot was straight and stiff, two days after ninth visit of doctors I was removed to my brother's in Isabella county, four miles woods road, moved on bob-sled, I was lying on a litter, the wound in leg had not healed up, granulated flesh was around protruding bone, the doctors asked me how I was getting along, they said my leg was crooked, the bandages were loose, and splint had moved and got out of place, they gave me chloroform and cut down the bone, after the bone was cut down they gave the foot a wrench, they then put the splint on, Dr. K. said in the course of a year I would be all right, two pieces of bone came out between ninth and tenth visits, the largest piece was one-half inch long, one-quarter inch wide and thin and jagged, the same week I notified the doctors that they need not come again, the sores on outside of foot had healed up, the others had nearly healed, I employed Drs. C. A. and G. Case to attend me after this, before I had my foot taken off it swelled very badly.

L. Quick: I was present in Isabella county when the doctors B. and K. made their last visit, splint and bandage were on and loose, the leg was crooked, they cut the bone down and straightened the leg, do not remember what conversation took place, they broke his leg over again, used same splint but changed to opposite side of leg, Travis' general health was good, his appetite never failed but once at my house, that was the day before he left, his health seemed as good as now, the sores on foot were nearly healed, I saw Travis on Christmas Day, he was on the lounge, had on a plaster of Paris splint, it extended to within three inches of ankle and was split I think, leg straight and ankle stiff.

Theodore Travis: Patient was removed to my house from Mr. Quick's Nov. 12th, I am his brother, I was present when the doctors saw him December 7th, his leg was crooked, the wound around break was healing, sores on foot and ankle healed and healing, foot inclined down and stiff, the doctors gave chloroform, cut down bone and put a powder on sores, patient was at my house five or six weeks before he went visiting, we notified Dr. Webb to come and see patient about three weeks after we noticed swelling and inflammation of ankle, two sores did not heal, when the swelling in the ankle commenced the patient was under the care of Drs. B. and K., the sores were healing up when the ankle was swelling, I first noticed the swelling and inflammation of ankle-joint after the splint was put on.

Dr. C. A. Case, Salt River, Mich.: I first saw Travis December 19th, the foot was inclined in and straightened out or extended, the ankle was enlarged and but slightly movable, could move it but very little, it had the appearance of chronic inflammation, the skin was firmly adherent and smooth and glossy, there was an opening on the outside of the ankle (not connected with bone or joint) over the external maleolus three-quarters inch in circumference, the skin around opening was loose, there was a sore on the inside ankle scabbed over and in the condition of healing, across the top of the foot was a scar extending nearly half way, there was a scar across middle of foot, on the posterior part of leg was a sore half inch in diameter, there was no sensibility on top of foot, it was sensitive on sole of foot and healthy, I could work the joint so that toes would move half inch, the swelling extended about an inch above ankle and two inches below, Dr. G. S. Case was present with me and attended Travis with me during the entire sickness. Dec. 25th was date of second visit, the ankle was immovable as at first visit, the sore on ankle was about the same, the leg over break was about the same, the patient complained of pain in foot and ankle, that it was so severe as to keep him awake at night, this was the only place that he complained of soreness, the foot was painful when it was moved, wound in leg discharging about the same, my next visits were on January 4th, 12th, 17th, 23rd and 31st; February 7th—this visit patient was at the house of Mr. Downes, Salt River, distance from Travis' five miles; February 21, March 10th, 12th, 15th, 21st, 29th, April 1st—leg was amputated below the knee.

March 29—There was no change in position of foot, or of the pain, from our first visit till March, from that day he did not complain of much pain, the foot was slightly movable, the flesh was sloughed off the ankle for space of one-fourth way round, loosened up but had not moved away, during this time a sinus formed from the break down to a point just above the external maleolus, an abscess formed there two inches above ankle, I lanced it several days before I amputated, during this time the *sore* on external maleolus had skinned over, on this day (29th March) the scar on heel and anterior part of foot was in process of sloughing, the foot was swollen, no sensibility in foot, during this time (December 19th to March 29th) all the wounds healed except the wound directly over tibia, this day there was mobility of the ankle-joint, it was due to sloughing and from amount of pus in the joint, I probed the opening and found that it went directly into the joint, I ascertained the bones were diseased—honey-combed, I passed my probe into end of tibia so that I was notified that it was denuded half inch, so was the other bone, from my first visit to last there did not seem to be any vitality on top of foot. On first of April I amputated leg at lower part of upper third of tibia, I examined the limb after amputation—partially within an hour, and the next day. I found the blood vessels in a healthy condition down to foot, from there could not trace them, I found a piece of flesh between ends of tibia, the tibia was united, so was fibula, the flesh on top of foot was adherent to bone, and blood-vessels seemed to be grown altogether, the skin around ankle was thickened, the synovial membrane was destroyed, we could only trace blood-vessels to thickening on ankle, I examined bones in foot and found them carious, the tibia beyond break seemed to be unhealthy, on the anterior there was a piece of dead bone one-fourth inch long. The conditions which necessitated the amputation were that the soft parts had sloughed off one-quarter distance round outside of ankle bone, the articulating cartilage between tibia and astragalus was destroyed, leaving the bones bare, the ankle being swollen. Second, the necrosed condition of tibia at point of fracture. Third, the foot was in an insensible condition and very little vitality in top of foot, could not discover any circulation in anterior part of foot. The cause or causes of the conditions which necessitated amputation were, the bandages applied from foot to knee, there being so many thicknesses and applied so tightly; next, the length of time they remained on the limb without being loosened; third, the tightness of bandage around foot and ankle, the inflammation set up around ankle caused by irritation of splint, the position of foot—being extended out of natural position.

Question (*defendant's counsel*)—What would be the degree of probability of a stiff ankle resulting from a fracture of this kind (comp. com. Tib. et Fib. midway) if treated with ordinary skill and care.

Answer—Not more than in a simple fracture below the knee.

Ques.—What would be the degree of probability of stiffness o the ankle in a simple fracture midway between ankle and knee, a this has been shown to be, both bones broken, tibia obliquely, fibul nearly transversely, if treated with ordinary skill and care.

Ans.—It may happen one time in a hundred, or one time fifty.

Ques. (*plaintiff's attorney*)—Is not sore foot a very common rouble in the treatment of compound com. fractures of the leg?

Ans.—No more than in the treatment of a simple fracture.

Ques.—How long a period of time is generally required for the ood union of a compound fracture of leg?

Ans.—About six weeks for a good union, the other from four to ve weeks.

Ques. (*defendant's attorney*)—State the degree of danger to the ife of the patient in case of a compound comminuted fracture of he leg between the ankle and knee, the tibia fractured obliquely nd fibula transversely, in a patient about thirty-eight years of age nd in ordinary good health?

Ans.—There is danger, perhaps one in fifty, the danger is slight.

The patient received constitutional and local treatment, iodide otassium, tincture Peruvian bark, quinine, iron, etc., from first to ast. A plaster of Paris splint was put on at once, it reached nearly ankle, did not include ankle and foot, stimulating liniments and ncture iodine were applied daily. Patient was not confined to ed after first few days.

Dr. *G. S. Case* is brother and partner of Dr. C. A. Case, saw ravis on 19th day of December, found him with ununited broken imb, the limb bent down at seat of fracture, rested in a V swing, here was inflammation of the joint, a good deal of effusion of the tissue.

[Most of testimony of these physicians is so nearly alike, that that already given in detail is practically the same as the other, and it is therefore omitted.]

Ques. (*by defendant's counsel*)—If the bandages in the case supposed* were wound over the flesh wound, would it increase or diminish the danger to the final recovery of the limb?

Ans.—It would increase the danger.

Ques.—If the leg of a healthy man in middle age should be bandaged not immoderately tight, and the bandage left on as long as in the case hypothecated (fourteen days), what would be the probable effect on the limb?

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*"A case of compound comminuted fracture of the leg, of a man between thirty-five and forty years of age, in general good health—midway between ankle and knee, by a blow upon outside of leg, the tibia broken obliquely, and fibula transversely, with an open wound opposite the upper end of the lower fragment of tibia."

Ans.—The leg would swell, the bandage being left on would strangulate or impede the circulation.

Ques.—If the leg was fractured between ankle and knee, both bones broken, would the danger be increased, and if so, what would be the probable result?

Ans.—The danger would be increased, the leg would swell, circulation be impeded, and danger of gangrene.

Ques.—State, in your opinion, what would be a reasonable time to leave leg, broken as the one in the case hypothecated, without removing the dressing and cleaning the limb?

Ans.—It should not be left to exceed twenty-four hours.

Ques. (by plaintiff's counsel)—Is it not true, in case of compound comminuted fracture of the tibia, produced by a powerful blow, that small pieces of bone might be driven off into the flesh where no reasonable amount of probing would find them?

Ans.—Yes. An ordinary blow would not do it, not without cutting the leg off.

Ques.—Is not the probable stiffness of the ankle-joint in a case of compound comminuted fracture of the leg of secondary importance to the union of the bones?

Ans.—It is not.

Report of a Case of Empyæma, with a few Remarks.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE, BY
DR. M. M. TUCKER.

In presenting the subject named, for a few minutes conversation, I wish to relate briefly a case I had in charge some sixteen months, and its subsequent history, which will perhaps serve as an example of what nature can do without much of the aid of the surgeon. I was called, in July, 1874, to attend a case, R., a young lady, aged sixteen, who had been treated some five weeks, for remittent fever at first, and subsequently as having the fever complicated with inflammation of the lungs. The history of the patient, previous to the present illness, had been that of health, with the exception of several attacks of intermittent fever during the year previous, which would be broken up for a time and then return, leaving her, on the whole, in rather delicate health previous to commencement of present illness. On a careful examination, I found the cavity of left pleura about two-thirds occupied by a fluid, the result of a pleurisy, giving a history apparently extending only from the beginning of the present attack. As the medical treatment of patient had been comparatively nil, in fact for two weeks had been only receiving small doses of Dover's powder, I put patient under anti-periodic treatment, to combat the fever which seemed, at this time, to be of an intermittent type, and which was required, more or less, through all the subsequent medication, as the section of country in which the patient lived abounded with malaria; and then I gave medical treatment especially to get rid of the effusion, which I thought might be sero-fibrinous in character. After two weeks of this treatment, the general condition seemed to improve, but no apparent diminution of the effusion; and at about this time were first noticed two small swellings one above the other, the upper one being between the eighth and, ninth ribs, and the lower between the ninth and tenth, close to their articulation with their respective cartilages. As the patient was much more comfortable than she had been, I postponed doing anything surgical except ordering warm applications till my next visit, but when I saw my patient again I found that the lower swelling had opened of its own account, and as the upper one did not disappear I lanced it—subsequently the lower opening healed up and the upper one remained patulent; again, after a time, a third opening formed to the inner side of the latter. At first the discharge was profuse, quite thick, and apparently laudable pus, but afterwards it varied from time to time as to quantity and quality, at times being quite thin, sometimes of no smell, and then again of so much smell that it would seem as if a new deodorizer would need to be invented or discovered, as a number of our best were used in this case. In the subsequent history of the case lies its interest. The discharge, after diminishing to about two tablespoonfuls per day, remained about the same, with the exception of temporary increase at times, apparently due to the use of various injections, or temporary plugging of the sinuses, as long as I had the case under my observation. I adopted the course for local treatment of constant cleanliness and injection of various remedies, more particularly carbolic acid and tincture iodine, of which I used various strengths, from weakest solutions for daily use to the pure article used by myself at intervals of several days, and yet (the general health and condition having much improved) the sinuses refused to entirely heal. At the inner side of the upper opening, after a few months, the junction of the cartilages of the eighth and ninth ribs, with the ribs appeared enlarged, and as the discharge became often very fetid in character, I expected to have necrosis of a portion of eighth or ninth ribs, and gave as my opinion that it would be necessary to have a portion removed, or discharged, before we should have the case cured; but, as near as I can learn, no part of bone came away, or was removed, although at present I have no doubt the ultimate cure would have been materially hastened if a portion had been removed. Formation of new bony material took place at this part, evidenced at present by an enlargement, some two inches in diameter, of the ninth and tenth cartilages. On my departure to Europe, in November, 1875, I recommended my patient to a medical friend, but the parents of the patient took the treatment in their own hands, and the subsequent history of the patient I had from them. They continued cod liver oil, iron and quinine, etc., for internal treatment; and local cleanliness, and the use of carbolic acid and bromo-chloralum for deodorizers. They also gave the patient for over a year, Dover's powder, one ounce lasting two weeks, in regular doses twice a day. I am pleased to say the patient has not become an opium eater, as she has not taken any for eight months. This treatment was continued till January of this year, when she began to take a patent medicine. Sometime about the first of May last the patient coughed up, as she says, large quantities of pus, which was followed by the rapid healing of the sinuses. In September I saw my former patient, and she presented the picture of health, and is capable of almost any amount of hard work, and only complains of shortness of breath on any unusual exertion. On my request my friend, Dr. Hibbard, North Branch, saw the case a few days ago, and he kindly furnished me with a few facts that may be of interest. When clothed, there is little difference in appearance of the two sides of the chest in front; behind, the right side is fuller, the left being flat, the shoulder lower, and the scapula apparently sunken in. When bared there is quite a marked contrast behind, and in front; in front there remain three deeply depressed scars, exits of former sinuses, which are distant from the mesial line respectively two and a half, three and a half, and four inches. At the place of the cicatrices the deformity is greatest, and a measurement of both sides corresponding, gives the right side fifteen and a half inches, and the left thirteen and a quarter inches. Percussion over the left half of thorax is flat from the fourth rib downwards behind, as well as in front; respiration puerile at apex of left lung, and tubular sounds are heard at lower part only on deep inspiration. Heart remains displaced to the right, the apex beat being most distinctly heard over the middle of sternum corresponding with the level of seventh costal cartilage. Patient's weight, beginning of last May, only eighty-nine pounds; and last week one hundred and thirty-three and a half pounds. Judging from the present condition of this patient, the question arises: If more active measures, such as counter openings and introduction of drainage tube, or removal of a portion of rib, had been taken, whether they would not have expedited matters and greatly benefited the patient? I personally think they would; and in a case similarly situated that I saw in consultation I recommended such measures, but I cannot give results. I see from a recent paper of Dr. Fox, before the British Medical Association, that in cases of empyæma, where spontaneous external perforation takes place, recoveries are more frequent than when perforation is artificial, and this case is an illustration in point. In regard to operative measures being used in cases of pleuritic effusions, the surgeon must be governed by their character and history, and by the condition of neighboring organs, more particularly the lungs. As to history, a general rule laid down, and carried out by the majority of authorities, is that internal medication should have a fair trial after acute stage is over, each case requiring a separate decision as to exact time when operative measures should be used with best advantage to patient, so as to have as full a restoration of parts as possible. As to character, probably not till an exploratory puncture has been made will it be known, and, when serous or sero-fibrinous its removal, when performed with proper care, will probably prove curative, and if not too long delayed will enable the lung to expand, etc. When purulent, it is conceded on all hands, that the only way is to remove, though some differ as to whether it shall be done by aspiration (which is fine in theory), or by free incision, so as to give free exit, and treat resulting sinuses by injections, drainage, etc. From three cases in private practice I am led to follow the latter; and having seen a number of other cases treated at hospital by the first method at first, but all of which had finally to be treated as by the latter. Again, we have to be guided by the condition more particularly of the lungs than other organs, and more as to whether the latter are tuberculous or not; for statistics prove that operative measures in these cases, where there are tubercles, only hasten the fatal issue; and again, on the other hand, that effusions continuing too long in the pleura of those predisposed to tubercle, lead to tubercular deposits. In speaking of operative measures, I have not taken into consideration those that require removal of effusion to meet immediate emergencies, but have been discussing cases which give the surgeon time to consider of operative measures which will be for the ultimate benefit of the patient.

Statistics of cases of pleurisy where non-interference or interference had taken place are called unreliable, from a loss of subsequent history of many of the former; while a more exact history of the latter goes to give a decidedly high mortality when compared with the former.

The best results for paracentesis are procured from children and young adults; this is supposed, in part, to be due, according to Sir William Jenner, to the circumstance that in advanced life the walls of the chest become rigid and cannot retract.

I beg to close by presenting the evidence of the authorities at the last British Medical Association, being in favor, in empyæma, of double openings with free drainage, in place of so much syringing, as being of less danger to the patient.

The Medical Department of the University of New York at its late commencement graduated doctors to the number of 153.

The Indigenous Medicinal Plants of Michigan.

BY A. B. LYONS, M. D., READ BEFORE THE DETROIT ACADEMY OF MEDICINE.

[Continued from page 118.]

When fields, that in earlier summer were yellow with buttercups or white with daisies, or purple with fragrant clover blossoms, have grown sere and brown, or yielded their treasures to scythe and mower; when already there are seen, here and there, flecks of scarlet amid the rich green of the yet flourishing foliage of maple, and pepperidge, and sumac, wild flowers of a statelier growth and more gorgeous coloring begin to adorn fence rows, and fallow fields, and meadows. The golden rods, "heavy with sunlight;" the purer gold of sunflowers, and of coreopsis, and helenium, to name a few only out of the multitude; asters, which dare to put on the royal purple or to copy the cerulean hue of heaven, blazing stars, with light ruddier than that of the planet Mars; "everlastings," whitening all the fields with the pure luster of their satin blossoms; fringed gentians, a flower that so blends, in the mingled azure and white of its exquisitely cut petals, modesty, and beauty, and purity, that it appeals irresistibly to the least susceptible heart; but the gentian alone of all this glorious company of the fall wild flowers claims no near kindred with its neighbors. They are all of the great family of Compositæ, to which our flower gardens also are indebted for some of their most effective masses of rich coloring; *e. g.*, in the China asters, zinnias, marigolds, cinerarias, chrysanthemums, sun-flowers, dahlias.

Not less than one hundred and fifty representatives of this great order are reckoned among our indigenous plants, but a few only of these deserve especial mention as useful medicines.

Thoroughwort or boneset, Eupatorium perfoliatum, of course must be included in the list—a tonic, with whose virtues, and disagreeable qualities too, we some of us made a compulsory acquaintance in our childhood. The dandelion, Taraxacum, is another plant much used both in domestic and regular practice. Tansy, an introduced plant, is likewise well known, rather for its abuse than its use.

Elecampane and chicory are also naturalized plants, the former having a recognized place in the materia medica.

The Canada flea-bane, Erigeron Canadense, known also as horse-weed and fire-weed, yields a volatile oil that is said to control hemorrhages, and is used in the treatment of piles. Another fire-weed, Erechthites hieracifolia, has similar properties, and yields also a volatile oil.

The commonest of wayside weeds, the May-weed, Maruta cotula, its yellow-eyed white blossoms familiar to every one, is our representative of the European chamomile, Anthemis nobilis; its place in the secondary list of the U. S. P. seems to be accorded it rather out of courtesy to the European plant, which, however, it resembles in properties.

Yarrow, Achillea millefolia, holds a similar position, out of regard, perhaps, to the high esteem in which it was formerly held.

One species of everlasting, Gnaphalium polycephalum, appears to have mild anodyne properties, and is reputed a valuable remedy for gastralgia.

Colt's-foot, Tussilago farfara, maintains its popular reputation as a cough remedy.

Besides these, I only mention the various species of Liatris (blazing-star, button snakeroot), the very inaptly named Ambrosia (rag-weed), the Senecio (squaw-weed), Polymnia uvedalia (leaf-cup), one of the remedies just now on trial; Hieracium (hawk-weed), Rudbeckia (corn-flower), and the asters and golden rods as embraced in the list of plants employed occasionally in medicine. Helenium autumnale, distinguished by its globose yellow heads, which have a conspicuous aureola of pure yellow rays, has perhaps more active properties than any of these; one of its southern congeners, H. tenuifolium, is said to be very poisonous, frequently causing the death of stock.

The lobelia family is a small one, but one which frequently unites with conspicuous beauty in its flowers, active poisonous properties. None of our wild flowers rivals in brilliancy of coloring the dazzling scarlet of the cardinal flower, and every one has sin-led out for notice and admiration the thick, densely flowered, purple-blue spikes of the greater Lobelia, L. syphilitica. It is a more modest plant, however, which figured so largely in the Thompsonian practice, and constitutes the officinal Lobelia of the pharmacopœia. Known to the Indians even as a narcotic, and used by them as a substitute for tobacco, this plant, L. inflata, undoubtedly deserves to rank among our more important indigenous drugs. In Michigan it appears to be comparatively scarce, although a very common weed elsewhere in the northern States.

The heath family, Ericaceæ, delighting especially in high latitudes and in mountainous regions, is represented much more fully in the northern peninsula than in our own immediate vicinity. It embraces many interesting plants, and not a few remarkable for their beauty, *e. g.*, rhododendron, azalea, mountain laurel; or their usefulness, as the cranberry, huckleberry, and blue-berry.

The evergreen checker-berry, or tea berry, better known among us as winter-green (Gaultheria procumbens), whose bright red berries persist with the leaves through the season of snows, yields a volatile oil largely employed as a flavor, and interesting as containing salicylic acid. The white berries of the delicate trailing snowberry of northern bogs, Chiogenes hispidula, contain also this compound, which likewise exists in the aromatic bark of the black birch, and in some other plants. Somewhat similar in general aspect to the Gaultheria, and evergreen likewise, and called also winter-green, are the species of Pipsissewa—Chimaphila—of which we have two; and these agree again in therapeutic use with that other trailing evergreen, the uva ursi, or bear-berry, which belongs to another genus of the same family, Arctostaphylos. To mention the trailing arbutus, Epigæa repens, among medicinal plants, seems a species of profanity—so sacred are the tender and poetic associations that cluster about this loveliest and most fragrant of all our wild flowers. Through the long summer days it is busy hoarding up sweetness and light, not as a niggard or a miser, but only that when others have spent all, it may have treasure of enhanced value to dispense at last with lavish liberality.

The Kalmias are known as poisonous plants; even the flesh of partridges that have fed on the buds of these plants in winter, is said to have imbibed their poisonous qualities; but the nature of the poisonous principle, or its action on the system, has not yet been carefully studied.

One plant only of the holly family is indigenous in southern Michigan, the winter-berry, Prinos verticillata; and this, although esteemed medicinal, is best known from the ornamental character of its scarlet berries, familiar in Christmas decorations.

Mentioning only in passing the two species of Plantain that represent sufficiently their small family, and the insignificant Pimpernel of the more important primrose order; also the curious Epiphegus (beech-drops, cancer-root), belonging to the Orobanchaceæ, plants without leaves, we pause on reaching so important a family as that which has given to the florist the snapdragon, and collinsia, and calceolaria, and maurandia; and to the physician, if nothing else, Digitalis, expecting to find among our indigenous species, of which the list is a long one, something of unusual interest.

Linaria vulgaris, butter-and-eggs, a pretty plant enough, with its dense spikes of yellow and orange blossoms; but a vile weed, and of a vile odor, not much used, and after all a naturalized plant.

Verbascum thapsus, common mullein, another naturalized plant, too familiar to need a word of description; but known again only as an imposing weed, not as a medicine.

Chelone glabra, turtle-head, snake-head, the name suggested by the strange shape of its white, closely clustered flowers; and perhaps this is the thing most noteworthy about the plant.

Veronica, speedwell, a large genus, and containing several names that have a place in the Dispensatory; here at last, in V. virginica, Culver's physic, better known as Leptandra, we find a drug probably of real merit. The tall, erect, sparingly-branched stem, whorled leaves, and slender, pointed spikes of small white flowers, sufficiently distinguish the plant which is frequently met with in woodlands throughout the southern part of the State.

The verbena family, as represented among us, is quite devoid of interest, although V. hastata and V. urticifolia are set down as medicinal; but the closely allied order of Labiatæ (mints) yields a large number of useful plants. Peppermint and spearmint are cultivated largely in our State, for the sake of the essential oils they yield.

Other plants, rich in volatile oils, are Hedeoma pulegioides, pennyroyal, Monarda punctata, horse-balm, and that favorite household remedy of the olden time, catnip (Nepeta cataria); also Collinsonia Canadensis, called likewise horse-balm. The bugle weeds, Lycopus, have a bitterness that is unusual in plants of this order, and probably deserve the reputation they enjoy locally as tonic and anti-periodic remedies.

Two species of Scutellaria, scull-cap, are met with in the State, plants having in their aspect or sensible properties nothing to indicate an active medicinal character—mints evidently; one recognizes that in their square stems, opposite leaves and the cut of their foliage, even before the flowers—with thin, characteristic, two-lipped calyx and corolla—make their appearance; but destitute of the aromatic smell and taste that so generally accompany useful properties in the mints, and yet pronounced on high authority among our best nervines.

Very closely allied to the skull-caps is the common weed, Brunella vulgaris, whose popular name, heal-all, is evidence of the esteem in which it has formerly been held by the laity, but almost unknown to the faculty.

Hoarhound, Marrubium vulgare, is a foreigner, scarcely yet naturalized, but familiar in name and properties.

The Borrage family furnishes no native plants of special interest, although two or three naturalized weeds, belonging to it, may be mentioned—the hound's-tongue, Cynoglossum, troublesome along road sides with its sticky burrs; comfrey, Symphytum, and gromwell, Lithospermum, all three rejoicing in the inappropriate specific name of "officinale."

Mentioning only among the Convolvulaceæ, an Ipomæa, whose gigantic tubers cannot be compared in value with those of its congeners—the sweet potato and the jalap—we pass on to the interesting but dangerous family of the nightshades. Remembering how many of our common esculents, as well as our most showy flowers and most potent drugs, come from this source—for to the solanaceæ we are indebted for the potato, egg-plant, tomato, ground-cherry; the garden petunias, daturas, and brugmansias; the deadly nightshade, the stramonium and henbane, and tobacco, we are a little disappointed to find that the order is represented in our section of country by but three indigenous species, and these all of a single rather unimportant genus, Physalis.

Several, however, of the officinal plants already mentioned have become thoroughly naturalized among us. The rank-growing stramonium, with its large, uncanny-looking leaves, its showy, trumpet-shaped, white flowers, looking strangely out of place amid the coarse foliage of the plant; and its spiny fruit, a veritable thorn-apple, is familiar to all.

The henbane, Hyosciamus, has established itself only in a few places, a plant occasionally met with in the vicinity of Detroit, but in late years singled out as a feeding plant by the unerring instincts of the poison-loving potato bug, and so likely to be exterminated. The same insect attacks also the stramonium, as well as the night-shade, and even the tomato; but does not appear to thrive well on any of them.

The black night shade, Solanum nigrum, is a common road side weed, not as poisonous probably as it is commonly reputed—for children often eat the ripe berries with impunity, and the leaves are freely used in some countries for greens.

The true bitter-sweet, met with frequently in woodlands, is also a solanum; but its crimson berries, however attractive to the eye, are too bitter and acrid to the palate to be dangerous.

The Gentian family is represented in our State by several valuable medicinal plants. Of the gentians proper, we have no less than eight—plants with showy blue or yellowish-white flowers appearing late in the season. All of them probably agree in properties with the officinal gentian; but one only, G. quinqueflora, is collected for medicinal use.

American Columbo, Frasera Carolinensis, belongs also to the gentian family, but is a rare plant in Michigan. The same is true of another of our native tonics, the American centaury, Sabbatia angularis, one of the prettiest of our wild flowers. From its general aspect one would be inclined to refer it to the pink family; the flowers are large and fragrant, the corolla of a delicate rose pink, so deeply parted that it seems at first sight to be made of five distinct petals. Other species of the genus are also well known in cultivation for the beauty of their regular white or pink flowers.

In bogs and wet grounds we meet with another of the gentianaceæ in the pretty and curious buck-bean, the spiked white flowers recognized at once by the heavy fringe-like beard that covers the upper surface of the corolla. The whole plant is bitter, and unites cathartic with tonic properties.

The dog-bane family, Apocynecaæ, belongs again chiefly to warm climates, and is distinguished on the one hand by the grace of form, the delicacy of texture, the richness of coloring, and the intoxicating fragrance of the blossoms of many of its species; on the other, by the poisonous character that pervades the whole order.

But two plants are natives of the State, both of them esteemed valuable medicinally, Apocyonum androsæmifolium, dog-bane; and A. cannabinum, American Indian hemp. The former especially illustrates the manner in which plants of this order conceal under an attractive exterior, dangerous properties. One would scarcely look for harm in the dainty pink and white bells of its fragrant blossoms; but then it gives a warning after all in the suspicious milky juice that flows whenever the plant is wounded.

Fantastic in form and generally gaudy in coloring are the umbel-clustered flowers of the milkweeds (Asclepiadaceæ). In them again a milky juice is associated with active properties which have given to two of our species a place in the list of the U. S. Pharmacopœia. The most valuable, probably, as it is the most showy, is the butterfly weed, called also pleurisy-root (Asclepias tuberosa), displaying its bright orange flowers on hill sides, or sandy or gravely soils; while its more modest cousin, A. incarnata, delights in wet rich grounds along the margins of streams.

Among the Oleaceæ we must mention one important medicinal plant, the black ash (Fraxinus sambucifolius), which certainly holds no mean rank among our indigenous drugs.

The curious family of the pipe-vine (Aristolochiaceæ), is represented in our State only by the aromatic wild ginger, Asarum Canadense.

We have also the typical plant of another small family in the poke-weed, Phytolacca decandra, whose luxuriant leafage and compact racemes of dark purple berries render it one of the most striking of our native plants.

The Chenopodiaceæ are mostly plebeian plants, and so are many of the Amaranth family.

Among the Polygonaceæ we find the several species of *Dock*, too well known to require more than a bare mention; the sheep-sorrel, also a Rumex; and the acrid smart weeds (Polygonum), some of which are largely employed in domestic medicine.

The laurel family is represented in the aromatic spice bush, Lindera Benzoin; and in the well-known sassafras, Laurus Sassafras.

Nearly allied to this is the natural order of Thymeleaceæ, to which is referred the medicinal Mezereum, represented among us by the tough-barked leather-wood or moose-wood, Dirca palustris. Another small family closely related to that which produces black pepper, furnishes for this enumeration a single plant, Saururus cernuus, the semi-aquatic lizard's-tail.

Especially rich in useful plants, and by no means destitute of ornamental ones is the large order of spurge-worts. Although technically apetalous, many of them are cultivated for the beauty of their flowers, brightly colored bracts supplying the place and fulfilling the functions of a corolla. A conspicuous instance of this is seen in the poinsettias, as also in our own wild flowering spurge. Among useful plants of the order, some are food plants—as the manihot and cassava; others yield valuable timber, as the teak; others furnish caoutchouc (Siphonia); several yield fixed oils, as the castor oil, the candle-nut (Aleurites), and the Chinese tallow-tree. The majority of these are poisonous, some, as the manchineel, dangerously so; while others are found potent medicines, *e. g.*, croton oil, stillingia, and the unpopular castor oil. The order, however, is very sparingly represented in a climate so cold as ours, and we can only enumerate a few species of Euphorbium, E. corollata, E. maculata, and E. hypericifolia, as plants entitled to a place in the materia medica.

The nettle family, which resembles the last in the number and variety of its useful products, including breadfruit, mulberry, fig, hemp, haschish, hop, elm, sycamore, banyan, and the india-rubber tree, yields among us nothing more important than slippery elm bark. The hop, Humulus lupulus, is also indigenous, but the market, of course, is supplied always from the cultivated plant.

Trees of the walnut family, hickory, butternut, and black-walnut, besides furnishing us their invaluable timber, and the nuts which give school-boys healthful occupation for their holiday afternoons, and squirrels their winter's supply of provisions, yield in their bark a medicine of no mean value. Juglans cinerea has a place indeed in the primary list of the U. S. P.

Still among the forest trees, we note the oaks, Cupuliferæ, as furnishing our principal supply of tannic acid; and in the same family the chestnut, Castanea vesca, whose reputation in the treatment of whooping-cough is probably not without foundation.

Among the Myricaceæ, the aromatic bay-berry, Myrica cerifera; the sweet-gale, M. Gale; and the sweet-fern, Comptonia asplenifolia, must be noted. And of the closely allied birch family, three species of Betula (birch), B. lenta, B. alba, and B. lutea; and two at least of Alnus (alder), A. incana, and A. serrulata, are mentioned in the U. S. Dispensatory.

The long list of willows—we have about a dozen indigenous species—with the allied poplars, included all in the order of Salicaceæ, may be disposed of in a sentence by stating that they agree in containing salicin, an agent that bids fair to assume a place near quinia itself in the variety and importance of its therapeutic uses.

Celebrated in the poetic literature of every language, from the days of Homer and of the Hebrew poet-king, to those of our own Lowell and Whittier, the evergreen coniferæ are acknowledged among all the trees of northern forests the royal family. Their distinguished pedigree goes back, indeed, as chronicled in the imperishable record of geology to the time when they held joint empire in a flora of more than tropical magnificence with palms and tree ferns, which now maintain their sway only within the torrid zone.

The stately spruce and pine that defy the winters of hyporboreal climes, the cypress of southern everglades, the classic cedar of Lebanon, and the giant Sequoias of California, ranked as among the wonders of the world, are some of the nobler scions of this royal house. In a State whose most important products are those obtained from her "pine lands," it is needless to enlarge on the importance from the utilitarian stand-point of our own representatives of the pine family. We only note therefore, incidentally, the influence which the balsamic exhalations from these trees are believed to have in warding off malaria, possibly by promoting the formation of ozone in the air, and the stimulating medicinal quality that belongs generally to their resinous exudations. We may particularize from our own northern forests the balsam fir, Abies balsamea, as furnishing the Canada balsam, and Pinus rigida as among the species yielding tar, pitch, and turpentine; obtained, however, more largely from the pines of the south.

Hemlock, A. Canadensis, is valued for the astringent properti of its bark, used so largely in tanning hides.

The Tamarack, or American larch, Larix Americana—unlik most of the conifers, a deciduous tree—abounding in swampy lan throughout the State, must not be omitted from the list of our usefu medicinal plants.

Savine, Juniperus sabina, grows in the northern peninsula. Th medicinal juniper, J. communis, is also common in various parts o the State, delighting especially in rocky sterile soils.

Red cedar, J. Virginiana, less hardy than the last, must be mentioned as akin in properties to the true savine. The white ceda Thuja occidentalis, also, which forms the cedar swamps of th northern portion of the State, has useful medicinal properties; an the same may be true of the certainly poisonous *ground-hemlock* or American yew, Taxus baccata, whose wax-like, coral-red berrie form a singular contrast with the spruce-like foliage of the plan

Coming to monocotyledenous (endogenous) plants, we find th Arum family an interesting one. Familiar to the gatherer of wil flowers are the singular hooded spathes of the Indian turni or Jack-in-the-pulpit, Arisæma triphyllum, green, variegate generally with stripes and blotches of dark purple, and not les conspicuous in the fall are its clusters of orange, red, or scarle berries. Most boys, too, have a vivid rcollection of some occasio when their confidence was abused by some older companion wh induced them to "take a little taste" of the turnip-shaped roo whence the plant has its name. The insupportable biting, burnin sensation which endures for hours, forms a lesson that generall lasts a life time—*crede experto.* This acridity is common to plant of this and allied genera (*e. g.*, the Callas), being present even in the roots of the esculent tanya of the south, A. esculentum; but dissipated by heat, in cooking; and it is believed that it is to their acrid principle that the medicinal virtues popularly ascribed to these plants are due. A. dracontium is in our State a rarer plant, identical in properties with that described.

Not to be confounded with this is the officinal Dracontium, skunk-cabbage, Symplocarpus fœtidus, the large, round, radical leaves of which are seen everywhere in low wet grounds throughout the early part of the season. This again is one of the few medicinal plants collected for the drug market in our State.

The sweet flag, Acorus Calamus, aromatic instead of acrid, abounds at least in our own immediate vicinity; too well known to need more than bare mention.

In the water-plantain family, Alisma plantago may be noted as "medicinal."

Two large orders embrace most of the ornamental endogens—those of the *orchis* and of the *lily*—both remarkable for the richness and variety of coloring, and often for the marvelous delicacy of texture of their conspicuous flowers; but the former continually surprising us with some wholly original new conceit of fantastic yet always graceful form; the latter relying almost always for its effects on the graceful outline of some symmetrical design. As instances of the first, we cite, among our wild flowers, the handsome swamp-pinks of our bogs—Calopogon, and the rare Arethusa; or, as still more characteristic, the moccasin-flowers or lady's-slippers, Cypripedium, of our woodlands. Of the last there is no better example than that of our common spotted meadow lilies.

In our severe climate, however, we look in vain for the lavishness of beauty that we find in exotic plants of these families to which the greenhouse and the flower garden are indebted for their choicest ornaments.

Among our native orchids, two genera only are of interest to the medical man — Corollorhiza, which furnishes the coral root exported from Michigan; and Cypripedium, a most valuable medicine, if its virtues can be judged by its disgusting flavor.

Besides the officinal C. pubescens, we have four or five species that probably agree closely in medicinal characters—C. parviflorum, yellow-flowered like the first, which it very much resembles in general appearance; C. spectabile, very handsome, with its large purple and white corolla; C. acaule, like the last, but less leafy; and C. candidum, a rarer, white-flowered plant.

In the lily family we find but one plant of primary importance, the green hellebore, Veratrum viride, probably found in our state, but which I have never met with. Its tall stem, large plaited leaves, and spreading racemes of inconspicuous flowers make it an easy matter to single it out among all the plants of the swamp.

Here belong too the wild garlics, Allium Canadense, A. tricoccum, and A. cernuum, which have doubtless the same medicinal properties (as they have the same intolerable odor), as those which belong to the cultivated garlic and onion.

The "wake robins" (Trillium), appropriately named as among the earliest harbingers of spring, are reputed medicinal; and so are the Solomon's-seal Polygonatum giganteum, the Indian cucumber root Medeola Virginica, and the adder's-tongue, Erythronium.

Among the Dioscoreaceæ, we must mention the wild yam, D. villosa, a pretty climbing plant, with heart-shaped, veiny leaves.

The wild blue-flag, Iris versicolor, abundant in wet grounds everywhere, is a representative of the ornamental Flower de luce family, and a potent medicine.

Of the small family of Hæmadoraceæ, our single representative, colic root or star-grass, Aletris farinosa, is also officinal.

The immense family of sedges is totally devoid of interest to the physician; and even the grasses, although fairly rivaling more ambitious plants in utility and even in beauty, furnish little to the materia medica.

Couch grass, Triticum repens, is employed to some extent medicinally, but could well be spared from our list—so the farmers and gardeners might be spared the endless labor of fighting a foe so tenacious of life.

The poisonous darnel, Lolium temulentum, too, must be named as a grass having exceptionally active properties.

Ferns, attractive as they always are to those who have an eye for beauty and grace of form, possess comparatively little interest to the utilitarian. A few of them have edible, although not very nutritious roots or stems—as for example the familiar brake, Pteris aquilina; and several species are reckoned medicinal. Among these is the beautiful maiden's-hair fern, Adiantum pedatum; the rock-brake, Polypodium vulgare; the flowering fern, Osmunda regalis; the female fern, Asplenium filix fœmina; and the common brake already mentioned as an esculent. More important, probably, than any of these is the male fern, Aspidium filix mas, which is among the rare plants of our northern peninsula.

Of the half dozen species of that curious genus, Equisetum, scouring rushes, one, E. hyemale, is singled out for mention in the Dispensatory, probably not from any peculiar virtues which its congeners do not share.

Lycopodium is the name given to the spores of the various species of club-moss, or ground-pine, Lycopodium, which we need not further particularize by name.

A single representative of the moss family is recognized as medicinal, the hair-cap moss, Polytrichium juniperinum.

Finally, the family of the Fungi furnishes us with one or two of our most useful medicinal agents—ergot of rye, produced by the growth of Claviceps purpurea; and corn-smut, probably very similar in properties, occasioned by another fungus, Ustilago maidis.

Abstracts from Exchanges.

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Practical Medicine.

DIPHTHERIA TREATED BY LARGE DOSES OF CALOMEL.—M. C. Reiter, M. D., in the *Philadelphia Medical Times*, January 5, 1878, says that he has become convinced that diphtheria is due not to a poison of the blood, but to an excess of *fibrin* corresponding to the old-time inflammatory diathesis.

His treatment is calomel in large doses every hour, until the stools "resemble the fresh water polyps in water troughs, gelatinous, and of a bright green hue; then the patient is safe." The proof of correct diagnosis is, "should prostration follow such heavy doses," the case is not diphtheria, but tonsilitis.

He says ptyalism does not follow such administration of calomel. The calomel is given in cold water and patients are permitted to take cold water and lemonade as much as they wish. Dr. Reiter also insists that the patients take mucilaginous fluids such as gum-water, barley gruel, flaxseed tea and slippery elm water—no other diet. He has given some of his young patients as much as half an ounce of calomel in four days' time. The Dr. claims by this treatment to have a high per centage of cures.

ACETATE OF LEAD IN LARGE DOSES IN POST-PARTUM AND OTHER HEMORRHAGES.—J. Workman, M. D. (*Canada Lancet*, January 1, 1878).—According to Dr. Workman, acetate of lead, in drachm doses, acts as a uterine motor stimulant to cause firm contraction after delivery of the uterus, thereby preventing post-partum hemorrhage.

In hemoptysis also, it—acetate of lead—may be given in half drachm to drachm doses, with very prompt effect. It should be given in solution and the dose repeated, if necessary. No opium should be given with it. In these large doses, the acetate of lead usually purges, and thus becomes eliminated from the system. Notwithstanding the prevailing opinion to the contrary, these large doses of acetate of lead are claimed by this author to be perfectly harmless. In corroboration of these statements a number of cases is cited which go to prove the truth of the above statements.

OPIUM IN PERITONITIS.—Dr. R. M. Hand, of Shabutes, Miss. (*Medical and Surgical Reporter*, January 5, 1878), reports a case of idiopathic peritonitis in a large, robust man, who was treated solely by large doses of opium, so that in every two hours' interval he took nine grains of the drug, to produce quietness, and in seven days this man took seven hundred and thirty-six grains of opium. Case recovered. (Patients in Mississippi may bear more opium than they would farther north.—Ed.)

Quinia as a Parturient.—Dr. W. Dow, in *American Medical Bi-Weekly*, January 5, 1878, concludes that sulphate of quinine cannot, by its action on the system, originate expulsive contractions of the uterus, and that it (quinine) can be given in all stages of utero gestation without producing abortion or miscarriage. But it is useful to stimulate the contractions of the uterus when once they have been aroused and have become inefficient; in most cases it is preferable to ergot on account of a greater degree of certainty and uniformity of action, on account of greater safety to mother and child, and its prophylactic action against puerpural fever.

The Brown-Sequard Treatment in Twelve Cases of Epilepsy.—James B. Ayer, M. D., *Boston Medical and Surgical Journal*, December 27, 1877.—Doses taken of the Brown-Sequard mixture, one and a half drachms before each meal and three drachms at bed-time. Six cases took 1-32 of a grain of strychnine sulph. after each meal. Some of the others took smaller doses. Patients were told that the full dose was to be continued two years; afterwards at discretion.

Results show that four cases had each a single attack in forty-six months, thirty-one months, twenty-two months and sixteen months respectively.

In five cases the number and severity of the attacks have diminished.

In one case the severity has diminished, but the number remains unchanged. In two cases no improvement.

Dialyzed Iron as an Antidote in Arsenical Poisoning.—Richard V. Mattison, Ph. G., in *Philadelphia Medical Times*, January 5, 1878, details some experiments to test the value of dialyzed iron as an antidote for poisoning by arsenic, and concludes:

1. "That dialyzed iron to be of any value as an arsenical antidote must first be precipitated by the action of some neutral or [illegible]

2. "That this precipitation and the consequent production f ferric hydrate are accomplished when this preparation is taken into the stomach; and that, therefore,

3. "The solution of dialyzed iron is a valuable antidote f arsenical poisoning, and should be administered promptly in cas of emergency as a temporary antidote, followed of course by eme ics."

The administration of dialyzed iron should be followed by a te spoonful or more of common salt to insure in all cases the form tion of ferric hydrate and the consequent neutralization of t poison.

HOWARD'S METHOD OF ARTIFICIAL RESPIRATION.—Dr. B Howard (*Philadelphia Medical and Surgical Reporter*, Oct. 13, 187) —In order to dispose of accumulations in the stomach or chest, t he patient stripped to the waist, is turned face downwards and a fi m bolster being placed beneath the epigastrium, makes that the high st and the mouth the lowest point. Pressure being made on the ba k, the object is accomplished by both ejection and drainage. T e patient is quickly turned upon his back, the bolster placed benea h it, making again the epigastrium and anterior margins of t e costal cartilages the highest points of the body, the hips, should s and occiput barely resting on the ground. The patient's wri ts are seized and the utmost possible extension being secured w th them crossed behind his head, they are pinned to the ground w th the left hand so as to maintain it. With the right thumb a d fore-finger armed with the corner of a dry handkerchief, the ip of the tongue is withdrawn and held out of the extreme ri ht corner of the mouth. (The wrists and tongue may be confided to any aid.) In this position, two-thirds of the entrance to the mou th is free. The epiglottis by this backward curvature of the ne k, is precluded from pressure by undue flexion. The head is depe d- ent, the free margins of the costal cartilages are as prominent as they can be made. The epigastrium being the highest point, t he diaphragm is neither embarrassed from pressure above nor fr om below. To produce respiration, the operator kneels astride t he patient's hips and rests the ball of each thumb upon the corresponding costo-xiphoid ligaments, the fingers falling naturally into the lower intercostal spaces. Resting his elbows against his sides and using his knees as a pivot, the operator throws the whole weight of his body slowly and steadily forward until his mouth nearly touches the mouth of the patient, and while one might slowly count one, two, three; then suddenly, by a final push, he springs back to his first position on his knees, remaining there while one might slowly count one, two; then repeat and so on, about eight or ten times a minute. The resiliency of the ribs insures an instant rebound to the point of departure. The operation can be practiced by anybody, anywhere, before or after division of the funis; in a bath, bed or boat; and friction, electricity, insufflation or tracheotomy could be practiced simultaneously, without inconvenience.

TREATMENT OF TYPHOID FEVER.—Dr. Wm. Pepper (*Boston Medical and Surgical Journal*, October 25, 1877).—Beginning with the second week of the disease, when the abdominal symptoms of pain and diarrhea have fully set in, one-quarter of a grain of nitrate of silver with one-twelfth of a grain of belladonna, and from one-sixth to one-half of a grain of the watery extract of opium are exhibited in pill form three times a day after meals. He thus reduces the diarrhea and tenderness. He uses very little stimulus and allows only beef-tea and milk as articles of food. Quinia is given with other tonics. Fever is reduced by frequent sponging of the skin of the entire body. When the high fever resists sponging, he employs cool baths. The best time for the use of the cold bath is in the early stage, during the first week or ten days, in cases where the temperature rises above 103°, and is not controlled by frequent spongings, large doses of quinia, diaphoretics, etc. The high fever of the subsequent stages is to a certain extent of a sympathetic nature, largely dependent on the amount of intestinal lesion; hence cold baths are then less available and attended with more risk. Nitrate of silver is used both with the hope of limiting the amount of specific follicular catarrh of the intestines, and with the intention of favorably modifying the secondary sympathetic symptoms. Dr. Pepper has cured *thirty-nine* out of the *forty* cases of typhoid fever in which it has been employed, by this nitrate of silver treatment.

TUBERCULAR MENINGITIS IN THE ADULT.—(*British Medical Journal*, October 20 and 27, 1877).—Among the papers to which the discussion in reference to the Penge case has given rise, is one from the pen of Dr. Reginald Southey, which deserves attention, since it deals particularly with the symptoms of tubercular meningitis in the adult. In a clinical lecture published in the same journal in 1876, he directed notice to two hundred and sixty-seven well authenticated cases of this affection; of these, 25.8 per cent occurred in children under five years of age; 17.2 per cent befell children between six and ten years of age; between the ages of eleven and fifteen years, the disease became exceedingly rare, 7 cases only out of 267, or 2.6 per cent only, presenting themselves; whereas between sixteen and twenty years of age 31 cases were recorded, and again a similar number between the ages of twenty-one and twenty-five, or at both periods of life respectively, 11.6 per cent. As life advances, not only are the symptoms attached to the disease far less distinct than when it occurs in childhood, but the malady begins and pursues its fatal course with singular insidiousness and is frequently misunderstood even by well experienced medical men until the autopsy reveals its true nature. It is apt to be misunderstood, because the symptoms are indistinctly pronounced or carelessly observed; the latter is the more common error.

The more ordinary symptoms that mark the invasion of tubercular meningitis in the adult, may be summarized as follows:

1. *Headache* is the most invariable symptom, seldom, if ever, absent.

2. *Vomiting*, *constipation* and *fever* are present, attended by no characteristic rash.

3. Peculiarity of temper and conduct, occasional confusion of ideas and slight transitory delirium, are also symptomatic of this disease.

4. General muscular pains, followed first by stiffness and then by slight paralysis, as shown in the imperfect co-ordination of the muscular movements in tremblings and in twitchings. The pain and stiffness are first felt in the nape of the neck, and then in the muscles of the back.

5. *Slight epileptiform convulsions are observed, followed by paralysis of motion in the limbs or parts convulsed;* this paralysis being most usually of a transitory or temporary kind. Among the characteristic and most frequently noticed paralyses are those affecting the optic commissure and oculo-motor tracts, causing a slight internal squint, with dilated inactive pupil of one eye, with drooping of the same eyelid and paralyses of the facial nerve upon one side. The paralysis of the limbs is usually a hemiplegia; still it seldom affects all the muscles and its progress is gradual. Co-ordination of movement is seldom perfect in the limbs which recover.

6. Hyperæsthesia of the skin generally appears, with peculiar mental phenomena; as obstinate and unaccommodating conduct, altered temper and attitude of dogged resistence. Very little nourishment is voluntarily taken. The retracted abdomen and the aspect of the patient, with half-open eyelids or some slight paralysis of these becomes highly diagnostic.

7. *Continual drowsiness* is observed. The patient shrinks from all disturbance and shrieks out when roused sufficiently to move or perform voluntary acts. From this drowsiness, the step to coma and death is seldom many hours distant.

SYPHILITIC ARTERIAL LESIONS.—(*L'Union Medicale*, September 18, 1877.)—In the late meeting at Havre of the French Association for the Advancement of Science, M. Lancereaux contributed a paper, upon the arterial lesions produced by syphilis. According to his conclusions, they are much more frequent than is generally believed, and, what is peculiar, have their seat principally in the encephalic arteries. The vertebrals, the basilar and the lvians are the ones generally affected. The anatomical charac- of these syphilitic alterations is their limitation, for these ts of arteritis are hardly ever longer than the Om. 01 to 02, and in fact seldom attain that size. The lesion comes beneath the internal lining of the vessels, in the sublial tissue; there arises a slight raising of the wall, a sort stule similar to an atheromatous spot. When these little open into the lumen of the vessel, there remain ampulvities, little aneurisms. In some cases the latter undergo some development, in others, a true obliteration of the art takes place. To distinguish these changes from atheroma, suggests the following points: 1. The patient is syphilitic; Atheroma is usually developed in the large arteries, while i syphilitic arteritis, the alterations only attend the encephalic vessels; 3. The patient is usually young, while the subjects o atheroma are usually advanced in age; 4. Finally, it is not unusual to observe a certain symmetry in the lesions.

To distinguish this affection clinically, from atheroma and embolus, he calls attention to these facts: 1. In embolus, the phenomena are immediate; in syphilitic arteritis, they develop more slowly, and are preceded by prodromes, headache, insomnia, etc. These prodromes belong also to atheroma, but here, the age of the patient is of great utility; atheroma is a disease of the aged, and syphilitic arteritis of the young; and, moreover, when the encephalic arteries are atheromatous, there is a great probability that the vessels of the limbs are likewise affected. By these signs, M. Lancereaux has made the diagnosis of syphilitic arteritis upon the living subject. It is a serious affection and of very grave prognosis. Hence treatment must be very rapid—iodide of potassium in large doses and frequent large mercurial inunctions. Pills must be left aside, their absorption is too slow.

E. A. C.

Bronchitis—Strychnine as a True Expectorant.—Dr. Fothergill (*Philadelphia Medical Times*, January 19th), says: "But increasing clinical experience of strychnine leads the writer to the conclusion, that of all agents which exercise a stimulant effect upon the nervous mechanism of the respiration, strychnine is one of the most potent and useful. Strychnine acts powerfully upon the expiratory part of the respiratory act, and kills by producing spasm of the muscles connected with expiration. It is very useful, n. when expiratory efforts are required for the expulsion of gathered in the air tubes. In chronic bronchitis, with ma, it is of great service, and in the dyspnœa connected dvanced Bright's disease it is very efficacious. It produces od effects when given alone, and is a useful addition to ordinary ough mixtures. A combination of carbonate of ammonium, tincture of nux vomica, and tincture of squills, is a most excellent mixture for patients suffering from dyspnœa, and generally procures them "more breath," as they phrase it. One of the most important matters connected with such use of strychnine is its relation to sleep. In many of these cases sleeplessness is a prominent factor; and sleep can be procured only by a narcotic. But while the narcotic acts upon the nervous system generally, it also acts upon the respiration, probably at its center in the medulla, and the patients are apt to make up with an attack of dyspnœa. By resort to strychnine these patients can be much relieved. By the use of strychnine during the day, a narcotic pill at bed-time is often deprived of its tendency to produce nocturnal dyspnœa; and strychnine may be usefully prescribed in case of shortness of breath, when there has been also long indulgence in hypnotics. Strychnine sometimes acts so powerfully upon the bladder centers, and produces such irritation there, as to necessitate its discontinuance. But this is not the rule by any means.

INTERNAL USE OF OPIUM IN THE PHOTOPHOBIA OF SCROFULOUS CHILDREN.—(*Memorabilien, 22d year, 7—Medical Record, October 20, 1877.*)—Dr. Betz states that opium given internally relieves the photophobia in case of phlyctenular keratitis in children much more quickly and thoroughly than the local use of atropine. He gives five or six drops of the simple tincture, at bed-time, to children of two or three years. He also uses cold compresses, or if the case be severe, iced compresses, but regards the tincture of opium as his chief remedy. He gives this in gradually increasing doses, until a quiet sleep is produced, and then stops. The restlessness and jactitation during sleep is controlled and a rapid amelioration of the local symptoms sets in. The patients open their eyes earlier than usual in the morning and sometimes the action of the opium is so prompt that the photophobia completely disappears after two or three days of treatment. To prevent relapses Dr. Betz continues the evening use of opium in diminished doses for some time and believes that its use improves the entire nutrition of the children. The temporary constipation caused by the opium is of little importance.

EARLY SYPHILIS IN THE NEGRO.—(*Medical Record*, October 27, 1877).—Dr. Atkinson, in a paper before the Baltimore Clinical Society, analyzed one hundred cases. Forty-five presented the primary lesion and during the same time but twenty-four cases of chancroid were observed. Chancres were marked by extensive ulceration, abundant secretion of pus and considerable tenderness. The specific induration varied, and in vulval chancres was commonly absent. The indurated inguinal glands were remarkable for their immense size, great tenderness and liability to run on to suppuration. Suppuration of the cervical and sub-maxillary glands was observed in eight cases. Of the eruptions, the papular was the most frequent. At first the papula is of a darker, later of a lighter hue than the rest of the skin. Rheumatoid pains, synovitis and iritis were observed much more frequently than is the case with whites. All these variations, Dr. Atkinson traces to the influence of the scrofulous diathesis, especially where there is an admixture of white blood. The diathesis delays, but does not prevent recovery and induces a marked predisposition toward the return of symptoms rendering necessary the exercise of constant vigilance.

Obstetrics.

ABORTION, ITS SYMPTOMS AND TREATMENT.—R. A. F. Pe rose, M. D. (*Medical Record*, December 29, 1877).—"The great accident of pregnancy is abortion." The expulsion of the product of conception from the uterus before the seventh month constitutes abortion. "The escape of the ovum before the twentieth day constitutes an effluxion." According to recent statistics 37 out of every 100 women abort at least once before reaching the age of 3[illegible] years, and it may safely be said that 90 per cent of married women abort at some period of their lives. The fact that 106 boys are born at full term, against 100 girls, would seem to indicate that abortion is easier in the case of female childen than in that of male children. Abortion may be of three kinds, spontaneous, accidental and designed.

The causes of spontaneous abortion may be divided into three classes :

I. Those resulting from the constitutional peculiarities of father and mother.

II. Those resulting from the condition of the uterus and its appendages.

III. Those resulting from a diseased condition of the ovum. Among the constitutional causes may be mentioned plethory, and its opposite, anæmia, the nervous temperament, and constitutional syphilis, and debauched old age also. A man who has once had constitutional syphilis should never marry.

Under the second class these conditions which interfere with the development of the ovum are mentioned as most important, viz.: displacements, inflammatory affections of the uterus and its linings, tumors, diseases of the rectum, bladder and ovaries.

Periodic abortions are due to menstrual congestion of the mucous membrane, a diseased state of the uterus, or some abnormal organic condition. Retroversion of the uterus and chronic endometritis cause the abortion of the impregnated ovum early, if not always, at least very frequently, where those troubles exist.

The most common causes of abortion are those that are found in the ovum itself. "Almost all the diseases which occur after birth may be present also in uterine life;" inflammations, dropsies, diseases of liver and kidneys, tuberculosis, stranglings, twistings and knots of the cord. Small-pox may be developed in the fœtus, while the mother shows no signs of the disease. The great majority of fœtal intra-uterine diseases are the results of constitutional syphilis in the parents. Also, the placenta may have hydatid disease of the villi, there may be alteration of the amnion, and even fatty degeneration of the placenta itself. It is the opinion of Dr. Barnes that fatty degeneration of the placenta is caused by syphilitic infection, resulting in an imperfect formative force in the ovum.

Accidental abortion is very likely to occur at the menstrual period, and may be caused by a violent fall, sudden fright, great grief, etc. Also, it may be produced by a distant irritation, as an irritated nipple.

There are many other causes that are sure to produce accidental abortion, among which may be mentioned the careless use of the uterine sound.

The two main symptoms of abortion are pain and hemorrhage.

The positive diagnosis of abortion can only be made by the discovery of the ovum in the discharges, or elsewhere. The discharges should all be saved for the inspection of the physician.

The prognosis is generally more favorable in spontaneous than in accidental abortion, for in accidental abortion the hemorrhage may be so rapid and profuse as to suddenly kill the patient. In a majority of criminal abortions hemorrhage kills the victim. Abortion produced by small-pox, scarlatina, dysentery, or pneumonia is exceedingly fatal to the mother. Abortion during the course of the disease, small-pox, is much more fatal than during convalescence from the same disease.

The treatment of abortion may be said to be both preventive and curative. The preventive treatment includes all the means used to prevent the repetition of abortion. Plethora, anæmia, or nervous irritability should be modified or removed. Syphilis should receive proper treatment. Local disorders, such as chronic metritis, hypertrophy, prolapse, retroflexion, or erosion of the uterus should be treated to remove the disorders. If a syphilitic mother become pregnant she should be subjected to mercurial treatment. If the ovum is already diseased it will be impossible to avert an abortion, and it will be better to allow nature its own course in such a case.

In case a healthy ovum threatens to abort, if there is little or no dilatation of the os uteri, it is sometimes possible to prevent the abortion if hemorrhage has not been too great. If dilatation is considerable and the ovum is bulging, you cannot stop the termination of the attempted abortion. It will be better to assist it and control the hemorrhage. To control hemhorrhage, give ergot in full doses, and use the tampon rather than depend upon ice-cold cloths, gallic acid, acetate of lead, etc. The tampon may be a temporary affair of a torn napkin, if nothing better is at hand; cotton batting in balls answers this indication well. The curative treatment of abortion is important. If an abortion has occurred, secure by all means an entirely complete evacuation of the contents of the uterus. Don't leave the placenta to come away by the efforts of nature alone. When the after-birth has all been removed you may rest easy, and *not before.*

If there is a placenta left behind, a troublesome hemorrhage is almost sure to follow sooner or later. Press the uterus down into the vagina, and introduce the finger into it, and hook down the placenta. If the finger is not able to reach high enough, a duck-bill forceps may be used with caution. But the placenta *must be brought away* to insure safety to the patient.

If there is hope of preventing abortion, put the patient to bed, use opium per rectum. Give the bromides freely. If the patient is plethoric, take blood from the groins by leeches, or from the arm with the lancet. Dry cups on the sacrum, or mustard plasters, may also be used.

After the abortion has occurred keep the patient on light diet, and in bed for two weeks or more, regulate the bowels with salines. Give ergot to promote involution of the uterus, and when the patient is up, put her upon tonic treatment.

Pathology.

Germ Theory of Disease, as Related to Experimental Evidence.—Dr. H. C. Bastian (*British Medical Journal, Jan. 12, 1878*), from an extended review of the experimental evidence bearing upon the germ theory of disease, deduces the following:

(1) If we are to be guided by the analogy now dwelt upon as existing between fermentation and zymosis it would be perfectly certain that the latter process can originate *de novo*—that is, under the influence of certain general or special conditions and where specific contagia of any kind are at first absent, though they subsequently appear as results or concomitant products so that an exclusive theory of "contagion," as the only present cause of communicable diseases is not supported by experimental evidence.

(2) That some contagia are mere *not* living chemical principles, though others may be living units.

(3) That even in the latter case, if the primary contagious action be really due to the living units and not to the media in which they are found, such primary action is probably dependent rather upon the chemical changes or "contact actions" which they are capable of setting up than upon their mere growth and vegetative multiplication.

(4) That where we have to do with a true living contagium the primary changes which it incites are probably of a nature to engender bodies similar to itself so that the infected part speedily swarms therewith.

Thus all the distinctive positions of those who advocate a belief in the so-called "germ theory of disease," or rely upon the exclusive doctrine of a "contagium vivum," seem to be absolutely broken down and refuted. We may give that attention to the appearance and development of independent organisms in association with morbid processes which the importance of their presence demands, but we must regard them as concomitant products and not at all or except to an extremely limited extent as causes of those local and general diseases with which they are inseparably linked.

Surgery.

FRACTURE OF FEMUR—MODES OF TREATMENT.—In a clinical lecture on fracture of the femur, by Frank H. Hamilton, he expresses his opinion of the various splints and modes of treatment in the following language: "Until the latter part of the last century all surgeons employed a straight splint, simply pulling the limb out, and binding a long splint to it. Essentially this plan of treatment was followed up to the time of Pott, of England, who wrote a brief essay on fractures, declaring that hitherto fractures of the thigh had always united with shortening; but he suggested an improvement on the old plan which was soon accepted by English and American surgeons, but not by the French and German for some time. This improvement soon became known as the position of the double inclined plane. This plan of treatment has its advocates up to the present time, but almost universally we have returned to the straight position. Of the numerous variety of splints, with their different modes of making extension, up to the time that Josiah Crosby, of Hanover, devised the method of using adhesive bands, all were attended with excoriation and ulceration of the skin, when the extension applied was equal to fifteen pounds. The same difficulty occurred with the perineal pad-band, or splint, in making the counter-extension. By means of adhesive bands which took hold on both sides of the leg, all the way up to the knee, distributing the pressure so it would not fall on one part, the trouble of the extending-band at the foot was overcome. This method was invented twenty-six years ago, and was one of the greatest triumphs of surgery. Soon after, raising the foot of the bed as an effectual means of counter-extension became generally adopted. By this means of extension and counter-extension, in adults a force of twenty to twenty-two pounds can be applied. In placing the patient in position, the pillow must lie under the head only, and always away from the shoulder; otherwise we can only utilize the weight of the pelvis for the counter-extending force. The reason why we can only use from twenty to twenty-two pounds as an extending weight, lies in the fact that the force must be limited by the ability of the ligaments around the knee-joint, and especially the posterior ligaments, to bear the force of extension, and these cannot bear more. The pain produced by stretching first begins behind, as the ligaments are not accustomed to tension. In the normal position the posterior ligaments are not put to the stretch. Some individuals will endure twenty and some twenty-five pounds. My rule is to apply the extension at first very moderately, and increase. The use of plaster of Paris is a step backwards instead of forwards. By this method we cannot get the slightest extension or counter-extension. The limb shortens as much as it is possible for it to do, and you can easily see the reason. If you put the plaster all the way up to the perineum, and endeavor to use that as a point for xtension, you will get ulceration. If you do not use the perineum as the means of obtaining the extension you have to use the oblique urface of the thigh and the curvature of the nates. In a small an this amounts really to nothing. While the plaster method as being used in the hospital, I saw more shortened and more crooked legs than there ever were before, and, besides that, I saw three deaths. I am happy to say to-day that this practice is almost entirely abolished. What do we use now? Look at this patient and you see the limb held closely by adhesive plaster, and fortified by a bandage, and to the foot-piece, which is clear of the malleoli, is attached a weight acting over a pulley. With this mode we ought not to get above three-fourths of an inch shortening. In this case, you see, there are two cords and weights, one on each side of the foot-piece. This is a device of my assistant house-surgeon, Dr. Munroe, and is designed to prevent rotation outward of the limb, which it does very nicely. So long as I have treated fractures of the thigh, and it is now nearly forty years, I have never yet met with a case of non-union in my own practice.

Over the fracture itself we should place four short side splints, so as to nearly encircle the limb. The best material for this is felt, made of several thicknesses of cotton cloth, secured in place by five or six separate pieces of bandage. We can thus open and inspect the fracture a dozen times a day if we choose. To prevent eversion, use a long splint which will run the entire length of the body. Its utility is twofold; it prevents eversion, and prevents bending outward at the point of fracture."

CARBOLIZED CATGUT IN HEMORRHAGE FROM THE MEDULL OF BONES.—(*Centralbl. fur Chirurgie*, Nov. 16, 1877—*New Yor Medical Journal*, August, 1877.)—Riedinger employed successfull the catgut No. 3 to arrest bleeding from the medulla of the tib in a patient sixty-four years of age, who had suffered amputati of the leg at the place of election, for fungous synovitis of t tibio-tarsal joint. Continued pressure with a sponge had no effe Four ligatures of the catgut were stuffed tightly into the cana the bleeding stopped at once, and the wound healed without di turbance of any kind. Experiments on dogs proved that the ca gut was absorbed after being thrust into holes bored in the com pact tissue, as well as when it was put into the medullary cavit

TUBERCULAR ULCER OF THE TONGUE.—(*Archiv. fur Klinisc Chirurgie, Band * *—British Medical Journal*, July 21, 1877.) M. Nedopil remarks that the diagnosis of secondary tubercul ulcer of the tongue is generally not difficult, in the presence of other indications of tuberculosis. But primary tubercular ulcer can often be scarcely distinguished from cancer unless a microscopic examination be made, while the failure of anti-syphilitic remedies denotes that the affection is not a syphilitic ulcer, which often has a similar appearance. The tubercular ulcer of the tongue runs a course resembling that of cancer. A small hard nodule on the edge or upper surface of the tongue, which is often overlooked, at last falls off and leaves a dirty ulcer with an indurated base, which generally spreads more slowly than a cancerous ulcer. Early extirpation is the only cure, and it may perhaps arrest the development of general tuberculosis. The author has observed four cases in Billroth's clinic; two of the individuals were thirty-two years of age, the others sixty-eight and seventy. In three cases the ulcer was extirpated, and healing took place in a few days. In the excised pieces the tissue around the ulcer was studded with miliary-tubercules, mostly towards the free surface. The morbid process appears to commence with a general transformation of the muscular tissue into a homogeneous, slightly granular plasma containing proliferating muscle-nuclei. Later, the primary deposits become confluent, and giant-cells are formed from the obstructed portions of the blood-vessels; in some of these Nedopil found cavities filled with brown pigment. The growth of the tubercle appears to take place partly through proliferation of nuclei (without cell-formation) in the interior, partly through metamorphosis of the neighboring tissue.

Action of Remedies.

ALKALOIDS OF OPIUM—THEIR ACTION.—The well-determined opium alkaloids now number sixteen. The effect of any one differs from the rest or from that of opium itself. Dr. Isaac Ott (*Journal Nervous and Mental Diseases*, January, 1878), reports a large number of experiments which, added to our previous knowledge, enable him to draw the following conclusion:

(1) Cryptopia is narcotic; excites and then depresses reflex action by an effect on the spinal cord, reduces power of motor

nerves, abolishes sensation by an action on the spinal sensory ganglia and lowers the heart-beat by an action on its muscular structure. (2) Thebaine is a spinal convulsivant; has no action on motor or sensory nerves or striated muscle. It reduces the heart-beat by an action on that organ, and increases blood pressure by stimulating the cerebral vaso-motor centers. (3) Codeia is a narcotic and spinal convulsivant; produces a veratroid contraction of striated muscle and depresses the heart-beat by an action on the cardiac muscle. (4) Chlorocodide is a tetanic agent. (5) Apocodeia produces vomiting, coma, and death. (6) Narceine is soporific to cold-blooded animals but not to man, and is a spinal convulsivant. It does not destroy the motor nerves, as they act on thrusting a probe down the spine. It produces veratroid contraction of the muscle, and reduces the heart-beat by stimulation of the peripheral end of the pneumogastric. (7) Papaverine is narcotic and convulsivant; the convulsions being partly spinal and partly peripheral, the latter, it is highly probable, from an action on the muscle. It diminishes the heart's contractions by peripheral action on the cardio-inhibitory apparatus. It also causes veratroid contraction of the muscle. (8) Narcotine is non-narcotic, and a spinal convulsivant; produces veratroid contraction of striated muscle and is a very active agent to decrease the beats of the heart by an action on cardiac muscle. (9) Cotarnine is soporific, and paralyzes, like curare, the motor nerves. (10) Hydro-cotarnine is narcotic and convulsivant. (11) Hydro-chlorate of cotarnamic acid is a convulsivant, and paralyzes the pneumogastric. (12) Laudanosine and laudanine are tetanic agents. (13) Morphia is a narcotic and spinal convulsivant. It produces veratroid contraction of muscle and reduces the heart-beat. (14) Oxymorphia has an action like morphia, only weaker. (15) Apomorphia is an emetic; excites and reduces spinal reflex excitability and diminishes the number of cardiac contractions. (16) Meconine is narcotic to cold-blooded animals, but not in doses of two grains by the stomach in man. It causes hyperæsthesia and paralysis of voluntary motion with general relaxation. It also produces a veratroid contraction. The opium alkaloids all have a dominant action on the nervous system, causing first increased exaggerated functions and, if the dose is large enough, a paralysis of them. In the warm-blooded animals this action is both on the spinal cord and cerebrum.

Physiology.

ON A NEW FUNCTION OF THE LIVER.—Dr. B. F. Lautenbach (*Phil. Med. Times*) gives the results of some new experiments on the functions of the liver. Ligation of the portal vein caused a great tendency to sleep, a diminished frequency in the beat of the heart and an increased, followed by a decreased arterial pressure, paresis of the heart, arresting fibers of the pneumogastric so that irritation of the sympathetico-vagi trunks will no longer cause cessation of the heart's movements, and great diminution in the number of respirations. It is shown that these symptoms could not be produced either by portal congestion or the formation of septic poison in the liver from decomposition. He now advances the view that all animals produce in their systems poisons which, if not excreted or destroyed internally, would rapidly prove fatal to their generators. To such a poison he ascribes the symptoms observed in tying the portal vein.

Taking the blood from an animal whose portal vein was tied, he injected it into the circulation of frogs from which he had previously removed the liver. The frogs died with the same symptoms as the the higher animals in whom the portal vein had been tied. Blood from the same animals, before ligation of the portal vein, had no effect on frogs whose livers had been removed.

The final proof of the poison—that is, its isolation—he could not obtain, owing to its great volatility or destructibility. He found, further, that the liver destroyed the specially poisonous agent in nicotine, in hyosciamia, conia, and the venom of the cobra snake. It had no effect on atropia, curare and hydrocyanic acid. The author concludes that the liver has, for one of its functions, the office of destroying certain of the organic poisons, and that a poison is being constantly formed in the system of every animal, which it is the office of the liver to destroy.

How Long Can Human Beings Survive Without Food?—A contribution to our knowledge of this subject is given by the *Medical Times.* An influx of water from an old working of a Welsh coal mine caught nine men and imprisoned them in one of the higher levels of the pit. Outsiders, believing that some of the men were alive, fitted large pumps to the pit, but without avail. Next it was decided to cut through forty yards of solid coal lying betwixt the imprisoned men and an accessible point. This took some days, but the men were finally reached, and and all recovered alive. For ten days they had been immured absolutely without food, except a little grease licked off their candle-box. They had some muddy water which they drank occasionally. Some of the men were able to walk away themselves on being liberated. As they were about to go to dinner when caught by the water, they began their fast on an empty stomach. What were the conditions favorable to the retention of so much vigor after so long a fast? (*a*) The men made almost no exertion. (*b*) They were in a pit of high temperature. (*c*) Until the last few hours they were kept dry. (*d*) They were in total darkness after their candles went out. (*e*) The compressed air which they breathed had no deleterious effect on the lungs.

Blood—Its Transpirability.—Transpirability of fluids is a term employed by the late Prof. Graham to designate the facility with which they passed through tubes of small calibre. M. Haro (*London Lancet*) communicates the result of some careful study of this property of blood. He has ascertained that warmth increases the flow of defibrinated blood, and this effect is more marked the richer the blood is in red corpuscles. Heat affects the movement of serum much as it affects the movement of distilled water. The effect is much greater when defibrinated blood moves slowly through a very narrow tube. Thus heat not only modifies the size of the capillaries and the action of the heart, but also the resistance to the movement of the blood in the capillaries.

Further, M. Haro has found that defibrinated blood through which carbonic acid has been passed, and from which all bubbles of gas have been removed by filtration through fine muslin, passes more slowly than the same blood which has been thoroughly exposed to air. Sulphuric ether, which is quite free from alcohol, retards the flow of defibrinated blood, of serum, and of water. Chloroform retards the movement of water and of serum, while it increases the flow of defibrinated blood. A solution of taurocholate of soda retards in a very remarkable manner the flow of defibrinated blood, while its effect on serum is scarcely perceptible.

FUNCTIONS OF THE SPLEEN.—Prof. Schiff, in a report made at the International Medical Congress, Sept., 1877, presented a paper on the functions of the spleen. His most important conclusions were as follows (*St. Louis Clin. Record*): (1) The spleen, during digestion, especially during stomachic absorption, prepares the ferment which, entering with the blood into the tissue of the pancreas, transforms a special substance (probably albuminoid) into pancreato-pepsin or trypeine, a substance capable of digesting albuminoid bodies. (2) After extirpation of the spleen the pancreatic juice loses its digestive influence upon albuminoid bodies while it preserves its other digestive properties. Duodenal digestion of albuminoids, normally distinguished by its energy and rapidity, then becomes as feeble as that of any other part of the small intestine.

SPORES.—(*The Doctor*, October 1, 1877.)—In microscopical examinations spores may be confounded with fat globules, blood discs, nuclei of epithelium cells, pus globules, etc. The diagnosis can be determined by the use of reagents.

Spores are unaffected by ether, chloroform, and alcohol, all of which dissolve fat cells, and render epithelium transparent. Ammonia makes spores a little more colorless. It dissolves pus and secretions of eruptive diseases, making a gelatinous mass. Hot solution of potash with alcohol dissolves impetiginous crusts, fat, pus, hair and epithelium. Acids destroy earthy particles.

INHIBITORY FUNCTION OF THE SPINAL CORD.—Dr. Isaac Ott (*Phil. Med. Times*, December 8, 1877) gives an account of a considerable number of experiments made to determine the inhibitory function of the spinal cord. From these he concludes: (1) As there is in the brain a monarchical vaso-motor center, and in the spinal cord weaker vaso-motor centers, so are there in the brain monarchical inhibitory centers of reflex actions, and in the spinal cord weaker inhibitory centers of reflex movement; (2) There are also ganglia in the spinal cord inhibiting spinal vaso-motor centers.

FUNCTIONS OF THE GREAT SYMPATHETIC NERVOUS SYSTEM.—Dr. R. M. Bucke (*Amer. Jour. Insanity*, October, 1877), in a very elaborate article, endeavors to locate the emotional nature in the sympathetic ganglia. The great sympathetic is a sensory motor system without any superimposed ganglia. Its sensory and motor functions do not differ from the corresponding functions of the cerebro-spinal system, more than its cells and fibres differ from those of the latter system, its efferent or motor function being expended upon unstriped muscle, and its afferent or sensory function being that peculiar kind of sensation which we call emotion. As there is no such thing as co-ordination of emotion as there is co-ordination of motion and sensation, so in the region of the moral nature there is no such thing as learning, though there is development. Hence in the moral nature the ignorant man or the uneducated woman may be and often is superior to the cultivated members of our race.

Pharmacy.

EFFERVESCING CARBONATE OF IRON.—Dr. T. Skinner gives the following formula—(*Pharmacist*):

Tartaric acid, twenty-four parts; bicarbonate of sodium, forty parts; protosulphate of iron, ten parts; powdered sugar, fourteen parts; citric acid, two parts. Mix the finely powdered, dry materials as follows: First the sulphate of iron with the sugar and part of the tartaric acid; secondly, the citric acid with the remainder of the tartaric acid and the soda. Stir the two mixtures together and unite by sifting. Finally granulate in an open metal vessel over a water bath.

OZONE POWDER.—A mixture of equal parts of manganese peroxide, potassium permanganate, and oxalic acid, when brought into contact with water develops ozone rapidly, and without inconvenience to those who are exposed to it when the quantity of powder does not exceed a teaspoonful or two. The powder must be prepared with proper precautions, for its ingredients form a dangerously explosive mixture. The materials should be employed only in a coarse powder, and mixed in small quantities on paper with a wooden spatula.

LIQUEFACTION OF THE PERMANENT GASES.—Two experimenters independently, Mm. Pictet and Cailetet, have demonstrated the fact that all gases may be reduced by the application of pressure and the abstraction of heat to the liquid condition. Oxygen, nitrogen, carbonic oxide and atmospheric air have been exhibited as liquids, and hydrogen as a solid of a steel-blue color. The success of these highly interesting experiments depends upon the efficient means of refrigeration at the command of the experimenters. The degree of pressure under which liquefaction was produced was far below that employed in the older experiments of Naterer, who actually shortened the steel piston used, and reduced the gases to $\frac{1}{800}$ of their volume without liquefying them.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Popular Medical Superstitions.

It cannot fail to strike every physician in active practice how utterly devoid of knowledge the masses are of everything concerning the structure of their own bodies, and how crude and ridiculous are the notions they cherish regarding diseases and their modes of cure. Nay, intelligent and educated people resort to practices to this end which are scarcely credible, and the individual cases which from time to time meet the notice of the physician make him reflect whether he is living or not in a land and age of enlightenment. Yesterday a lady of intelligence informed me of the efforts she had made, by the advice of a friend, to cure her boy of incontinence of urine by administering to him a fried mouse. Not long since I was present at a tedious case of obstetrics where the good mother of my patient tried "to unlock the labor" by taking the locks off the doors. We all know with what devoutness many believe in the efficacy of the chestnut carried in the pocket as a prophylactic in rheumatism. I was gravely informed by a wise old lady, not long since, that if Mrs. —— (a patient of mine who was childless), would turn the head of the bed to the southeast, she would soon become in the condition she desired. It is a standard superstition in some portions of Ireland, that if a tea is drank, made from the after-birth of a newly delivered woman, it will cure barrenness. It is not considered lucky by some to bury the after-birth of a newly delivered woman. It should always be burned. By some people the window is always left open when a person is about to die, as this is supposed to lessen the death struggle and favor the egress of the departing spirit.

Indeed, the medical superstitions of these modern days are, I think, as a whole, as unpolished and uncouth as any on record in the middle ages. They would seem to point to the fact that there is a deep underlying stratum of superstition in human nature which, but for the continual sediment of knowledge thrown down by the civilization of the age, would soon crop out in all its bald deformity. It is in this element that all the mystical sects of the present live and thrive—the spiritualists, the sooth-sayers, the homeopathists, and those who cure by the laying on of hands. That an average general intelligence is not a complete antidote to this state of things is shown by the too frequent defection of intelligent people from the guardianship of regular medicine to the ranks of the irregulars. But in my observation it seldom happens that this results when there has been even a partial training in anatomy, physiology and the laws of hygiene. This unveils the mystery which seems to envelop the workings of the human system and the mysterious action of remedies. The doctor no longer possesses the wonderful attributes which formerly clothed him, in the eyes of such people, but is invested with more power for their good, since they partially comprehend the principles which guide his actions, and are more able to aid him in their accomplishment Some special knowledge, then, of the body, its functions and the rules indicated for its preservation or the restoration of its functions when impaired, is a true antidote for quackery. To the cultivation of exact modes of thought, which the popularization of science has induced amongst the people, scientific medicine owes much, and by its further development in the future those systems of medicine which are founded on fallacy must be swept away and true medicine attain the position in the minds of the people which it merits. In this good work, therefore, the efforts of every practitioner should be directed, using his influence to enlarge its sway and in teaching the public mind that medicine is essentially a science of common sense and that every true physician is its prophet.

H. A. C.

Death of Claude Bernard.

The recent death of Claude Bernard brings vividly into mind the record of a peculiarly active and fruitful life.

Born at St. Julian, July 12, 1813, he was at the time of his death in his sixty-fifth year. His studies were pursued in Paris, and his reputation established by his researches on the functions of the pancreas. The French Academy in 1846 awarded him a prize for this work, and in 1856 published it in the Academical Annals. In 1854, he was made incumbent of the newly established chair of general physiology in the faculty of science, and made a member of the Academy. In 1855 the College of France appointed him professor of experimental physiology, and in 1868 he was made professor of general physiology at the Museum.

His most celebrated discoveries relate to the functions of the liver. The stimulus to thoughts and experimental inquiry created by his papers on the "Glycogenic Function of the Liver," has scarcely ceased even now. Of his other papers, we may mention those detailing his experiments on the "Great Sympathetic," on the "Pathological Alteration of the Various Fluids of the Body," on the "Physiology of Nutrition and Development."

His "General Physiology," published 1872, received a valuable prize from the French Academy.

His experimental inquiries cover almost the entire field of medicine, but his most important discoveries were the *diabetic center* in the floor of the fourth ventricle and the *glycogenic function* of the liver.

Memoranda.

Dr. Edward W. Jenks has been elected member of the London Obstetrical Society.—*Toledo Medical Journal.*

At the late meeting of the New York Medical Society the members, delegates and invited guests numbered one hundred and fifty-seven. Dr. D. P. St. John Rosa was elected President for the ensuing year.

By its recent action the University of London grants its degrees to women and permits their names to be placed on the Medical Register. Thus a long and hardly contested battle for equal rights has been won.

Dr. Wm. Stokes, the great Irish physician, died Jan. 7, 1878, aged 74. He is well known all over the world by his varied writings. His lectures on "Theory and Practice of Medicine," "On Diseases of the Chest," and on "Diseases of the Heart and Aorta," are excellent models.

An effort is now being made to secure the passage of a law requiring all the medical schools of the Province of Quebec to hold a course of nine months' instruction. It is claimed by its opponents that this is a move on the part of the "University of Laval" to crush out its rivals, the McGill and Bishop Medical Colleges.

The annual death rate of Lansing, Mich., for January, 1878, was 11.05 in 1,000. The number of deaths for 1877 is only three greater than for 1868, although the population has nearly doubled. The absence of epidemics and the reclamation of thousands of acres of swamp lands in the vicinity of the city, are the probable causes of this diminished mortality rate.

Dr. Isaac Ray (*Journal of Nervous Diseases*, Jan., 1878), in a somewhat exhaustive manner, discusses the cost of constructing hospitals for the insane. He concludes that avoiding on the one hand, a style of construction more extravagant than is needed for any rightful purpose, and on the other hand, a sort of false economy which leaves a large margin for future repairs and improvements, state hospitals for the insane may be established in our country at an average cost per patient ranging from $1,000 to $1,500.

Bulwer says, "I remember to have cured a disconsolate widower who obstinately refused every medicament by a strict course of geology. I dipped him deep into gneiss and mica-schist. Amidst the first strata I suffered the watery action to expend itself upon cooling and crystallized masses; and by the time I had got him into the tertiary period, amongst the transition chalks of Maestricht and the conchiferous marls of Gossau, he was ready for a new wife." Mental action was substituted for that of mere sentiment, and the cure was completed.

The *British Medical Journal*, January 19, 1878, gives the following facts in the early history of David Livingstone, the great traveler, the good physician and the Christian missionary: "Many years ago a weaver boy placed a Latin grammar on the spinning jenny and unmoved by the noise of the machinery and the novelty of the position, learned its rudiments as he passed from loom to loom. The boy grew into a loose, slim-jointed lad of nineteen years, and was fired by the ambition to become a member of a profession which he regarded as pre-eminently devoted to practical benevolence, and which, with unwearied energy, pursues from age to age, its endeavors to lesson human woe." In this way he scraped together enough to support himself at the Andersonian College of Glasgow during the winter. During the summer he returned to his loom and weaver's lot, so that with justifiable pride and independence he could say, "I never received a farthing of aid from any one." When this same boy, when tired and worn with life's journey, sank to his rest, faithful hands bore him homeward and a grateful nation placed his remains in that mighty mausoleum where England loves to bury those of whom she is proud."

Dr. L. P. Yandell, Sr., died of pneumonia, February, 4, 1878, aged 73 years. For more than fifty years he has been an active power in the profession of the southwest. He began his career as a medical teacher in Transylvania University in 1831. In 1837 h became associated with the Medical Department of the Unive sity of Louisville. Leaving this school in 1859, he accepted chair in the Memphis Medical College. In 1864 he was ordaine pastor of the Dancyville Presbyterian Church. After three yea he resigned this position and returned to the practice of medici in Louisville. He had occupied many positions of honor—wr over an hundred original papers. As editor of the *Transylva Journal of Medicine*, and afterwards of the *Western Journal Medicine*, he was both active and able. He has left his n indelibly impressed upon the history of medical science and especially through the southwest.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publish and Booksellers, Detroit, Mich.

LANDMARKS, MEDICAL AND SURGICAL. By Luther Holden F. R. C. S. From the second English edition. Cloth; pp. 128. Philadelphia: Heny C. Lea. 1878.

The substance of this volume first appeared in the Saint Bartholomew's Hospital Reports. With additions, it was first published separately in 1876. The object of the author is to urge students to acquire the habit of making the eye and the hand work together, and to educate the "touch" upon the normal living body. The medical and surgical landmarks of the human body cannot be too firmly burned into the medical student or practitioner. By landmarks, the author means surface marks, such as lines, eminences, depressions, which are guides to or indications of deeper-seated parts. As a succinct guide for this purpose, the work deserves all praise. To further illustrate, we take the following:

"To find the lachrymal sac, draw outward the eyelids to tighten the tendo oculi, which crosses the sac a little above its middle. A knife introduced just below the tendon, close to the edge of the orbit, would enter the sac. The angular artery and the vein would be on the inner side of the incision. A probe directed in a line with the inner edge of the orbit, *i. e.*, downwards, outwards and backwards, would traverse the nasal duct and appear in the inferior meatus of the nose." The work deserves a place in the library of every practical working student or practitioner.

STUDIES IN PATHOLOGICAL ANATOMY. By Francis Delafield, M. D. No. 1—Feb., 1878. Quarto. Paper; pp. 9; with three full page lithographic plates. $5.00 a year; single numbers 50 cents. New York: Wm. Wood & Co.

Dr. Delafield is well known to the profession as a pathologist. His researches on the inflammations of connective tissue of mucous membranes of the viscera, and the structure of tumors, have been carried on during several years. They are now sufficiently completed to warrant the publication of some of his work. The paper before us introduces the pathological anatomy of inflammations of connective tissue. Properly, the writer first defines connective tissue—gives its varieties and location. The illustrations of flat and branching connective tissue cells are well executed and very instructive. After stating the significance of these, the changes which may occur in connective tissue are enumerated under the following heads: "Cellular Inflammations;" "Inflammation, with the production of Serum, Fibrine and Pus;" "Necrotic Inflammation;" "Inflammation, with the formation of Abscesses;" "Reparative Inflammation," "Hyperplastic Inflammation," and "Tubercular Inflammation." With a brief definition of his meaning by these several terms the paper closes. Issued in elegant style, these papers can scarcely fail of a hearty welcome by all progressive men in the profession. Surely they will throw much light upon confessedly obscure points in the subject discussed. Too many of such studies we are not likely to have.

APPROVED PLANS AND SPECIFICATIONS FOR POST HOSPITALS.

Surgeon-General's Office, Washington. Quarto; pp. 18; with a large number of illustrations. Oct. 20, 1877.

A general idea of these plans may be obtained from the following items for a regulation Post Hospital of 24 beds:

It consists of a central administration building and two wards, arranged as wings. The wing for each ward will be forty-five feet eight inches long, by twenty-five feet four inches wide, and fifteen feet high in the clear, from ceiling to floor. For very cold climates the height may be reduced to twelve feet, in which case the length will be increased to fifty feet. Attached to each ward, and at the outer end and behind, will be a room for earth closets.

The administration building will be thirty-six feet four inches front, by forty feet four inches deep, and two stories high, with a back building forty-three feet eight inches by fifteen feet four inches. Each story of this building will be thirteen feet high from floor to ceiling. A veranda ten feet wide will surround the hospital.

In hot climates the wards will be detached from the main building, remaining connected with it by the verandah only, which will thus entirely surround the ward. The back building will be separated in like manner.

Plans are given for a hospital of twelve beds, of one and two stories. All the minutiæ in the details of building are given. These, taken with the diagrams, render the work a very complete one.

MORTUARY EXPERIENCE OF THE MUTUAL LIFE INSURANCE COMPANY OF NEW YORK, with tabulated reports and an Analysis of the Causes of Death. By Drs. G. S. Winston, W. R. Gillette and E. J. Marsh. Vol. 2; half sheep; pp. 2[illegible]4. New York: Printed for the Company. 1877.

Two years ago we noticed the first volume containing the mortuary experience of this company during thirty years. This experience was of such interest in its relation to the causes of death, etc., of a picked number of persons that we are glad to see a more extended study made of the same data. In this volume each cause of death is analyzed and the results shown.

Owing to its importance nearly one-half of the work is devoted to a consideration of consumption. The results reached by this study are as follows: "Consumption is an extremely common disease in all parts of the world, causing from ten to fifteen per cent of the total mortality, and destroying annually about 35 in every 10,000 adult inhabitants. In New York City nearly one-third of all deaths occurring among adult males are caused by this disease. In the experience of the Mutual Life the proportion has been 19.74 per cent of the total mortality, and 19 per 11,000 lives annually. Consumption prevails with nearly equal frequency at all ages between 20 and 60 years, and, according to American statistics, with increasing frequency above that age. In life insurance experience this law of equal prevalence between 20 and 60 years does not hold good. The disease is frequent at all ages, but has a maximum at about 21 years, then diminishes up to the age of 60, and after this increases. The difference between the mortality in the general population and among assured lives is accounted for by the more ready detection of consumptive risks after middle age than in youth. There is little difference in its prevalence in different sections of the United States, as experienced by the Mutual Life. There are few deaths from consumption within the first year of insurance; the number increases regularly to the fourth year, after which it remains nearly uniform during all subsequent periods. Our records show nothing important with regard to the influence of occupation.

"The average weight of consumptives is considerably below that of non-consumptive persons. Hence a light weight must be regarded as a suspicious circumstance in estimating the value of a life for insurance. The existence of an hereditary tendency to consumption has been generally asserted and believed, but has not been proved. Our statistics afford this needed proof. It occurs, however, only in a minority of cases, and its presence or absence should not be allowed undue weight in deciding upon the value of a life.

"Hæmoptysis is the most valuable sign of the consumptive diathesis, and whatever its reported cause and source may be it should never be disregarded, and no person should be considered a safe risk for life insurance until ten years have passed since its occurrence."

The extreme care exercised in collecting and arranging the data upon which those conclusions are based render them of considerable practical utility. The remainder of the work is devoted to a like study of other diseases. Those interested in the statistical investigation of disease will greatly value the entire work. The elegant manner in which it is issued adds not a little to the pleasure of perusal.

TRANSACTIONS OF THE THIRTY-SECOND ANNUAL MEETING OF THE OHIO STATE MEDICAL SOCIETY. Cloth; pp. 200. Cincinnati, O. 1877.

The volume opens with the brief minutes of the meeting. The retiring president, Dr. W. J. Scott, in his address makes some sensible remarks upon medical education. Dr. Thomas W. Gordon presents an account of the evidence tending to prove that sulphate of quinine is an antipyretic of great importance. His views were in the main sustained by the discussion which followed. Dr. B. B. Leonard, in his report, gave half a dozen obituary notices of deceased members of the society. Dr. S. S. Gray contributes an article on "Milk Sickness," from which he concludes "that it is a specific disease; that it is produced by taking a poison into the stomach with the food; that it originates alone in wild, uncultivated lands; that cultivation destroys it; that the specific poison has not as yet been discovered; that herbivorous animals are the first to be poisoned with it, and afterward it is transmitted to carnivorous animals and man by their flesh or milk; that no antidote has yet been discovered; that there should be a more thorough and systematic investigation of this disease by *post-mortem* and analytical examination." Dr. S. F. Forbes gives a good account of our knowledge concerning manipulations in the reduction of dislocations, giving due credit to Dr. Reed, of New York, for his labors in bringing the matter prominently before the profession. In a paper on "Paracentesis of the Cornea," Dr. S. C. Ayres gives the various conditions calling for the performance of this operation. Dr. J. H. Pooley discusses the surgical treatment of perityphlitic abscess in an exhaustive paper. To it he appends a table of forty-six cases. A paper on purulent ophthalmia, by Dr. X. C. Scott, gives the salient features of the disease.

A short paper by Dr. C. S. Muscroft, on the "Prevention of the Spread of Syphilis," called forth a general discussion. The volume closes by a paper on "Chloral Hydrate as a Remedial Agent in Puerperal Convulsions," by Dr. J. Morris. We notice a great improvement in the proof-reading over the issues of former years.

MALARIA AND STRUMA IN THEIR RELATIONS TO THE ETIOLOGY OF SKIN DISEASES. By L. P. Yandell, Jr., M. D., Louisville, Ky. Reprinted from the *American Practitioner* for January, 1878.

This paper was first read before the "American Dermatological Association," at its meeting last fall. No member of the Association gave any weight to the views presented, still Dr. Yandell persists that he has made a great discovery, which in time will be appreciated by the profession. His proposition is as follows: "Malaria is the chief source of acute skin disease. Scrofula is the chief source of chronic disease. The more inveterate cases of skin disease are often due to the co-existence of these two things. The specific exanthems, of course, are not included here, but I contend that their progress and termination are often largely influenced by the presence of malaria or struma." He admits the existence of other causes, as irritants, injuries, insufficient food, vicissitudes of temperature, alcohol, dentition, etc.

The proofs of his views are, (1) that acute skin diseases yield most readily to anti-periodics, and chronic skin diseases to anti-strumous remedies, and (2) that careful and painstaking investigation will in the majority of dermatoses make apparent the existence of the malaria or the struma, as the case may be. With all due deference to Dr. Yandell, we must say that our observations do not correspond with his. Still, he may be correct. Certainly his views are sufficiently simple to satisfy the most exacting.

ON THE USES OF WINES IN HEALTH AND DISEASE. By the late Francis Anstie, M. D. Reprinted from the *Practitioner*. Cloth; pp. 74. Price, 75 cents. London: Macmillan & Co. 1877.

The papers constituting this volume appeared in the *Practitioner* several years ago. At the time of their publication they excited quite an extended discussion, as they specially insist on the value of alcohol in acute as distinguished from chronic disease. About half the book is devoted to the attempt to fix the place of wines in the diet of ordinary life, and the rest more especially to its medicinal use. These papers have quite a positive value to the thoughtful practitioner. If wines must be used, let us have it done so as to accomplish the least harm and the greatest good.

THE TREATMENT OF FRACTURE OF THE FEMUR. By Edward Borck, M. D. Reprinted from *St. Louis Medical Journal.*

This paper advocates the treatment of a fractured femur as follows: The patient is placed upon a firm mattress; the foot of the bed is elevated three or four inches; the shoulders are also elevated, even as much as the semi-sitting posture; the fractured thigh is placed upon a double-inclined, firm yet soft pillow, the foot against a board or pillow. Thus the body and the leg will usually make all the extension and counter-extension needed. If further extension be required it should be made direct from the thigh.

PROCEEDINCS OF THE ASSOCIATION OF MEDICAL OFFICERS OF AMERICAN INSTITUTIONS FOR IDIOTIC AND FEEBLE-MINDED PERSONS. Paper; pp. 35. Philadelphia: J. B. Lippincott & Co. Sessions 1876–77.

TWENTY-FIFTH ANNUAL REPORT OF THE PENNSYLVANIA TRAINING SCHOOL FOR FEEBLE-MINDED CHILDREN. Media, Delaware County, Pa. Paper; pp. 35.

Among the books received, Erichson's Surgery will be noticed in our April issue; also, Dobell's Reports of Chest Diseases, etc.

THE DETROIT LANCET.

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Original Communications.

A Method of Shortening and Greatly Facilitating the First and Second Stage of Natural Labor.

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CASE TO ILLUSTRATE.—L. M., primipara, age twenty-two, rather short and fleshy. Called to see patient two P. M.; had been in labor twenty hours; pains severe, neuralgic and very aggravating; patient discouraged and somewhat exhausted, throwing herself in all positions, and during the pains would throw her shoulders back and abdomen forward, and would remain in a rigid condition as long as the pain lasted, throwing the child over the os pubis so that the axis of the superior strait was nearly at right angles with the posterior wall of the pelvis.

On digital examination found the os resting against the sacrum, producing antiflexed malposition of the uterus.

Finding my patient in a disagreeable condition I proceeded as follows, which has been my custom for the last twelve years of my practice: gave her a hypodermic injection of morphia gr. ¼, which quieted those neuralgic pains, rested and restored her lost nervous energy at the end of two hours. I then placed her in position for labor; placing her upon her back, flexing her thighs, her shoulders bolstered up, the smaller or lumbar portion of the spine down so as to form a curve, the convexity of which is down; thus the two axes of the superior and inferior straits instead of forming abrupt angles, will form a continuous curve.

I have now gained my second object, including the instruction of my patient in the philosophy of this position, and inducing her to consent to any and all necessary aid for her in her trying hours.

After rest and position has been obtained and labor now commences, I pass my index finger back into the os, gently pulling it forward, causing dilatation, at the same time pressing the fundus gently upwards and back so as to bring the child in proper relation with the lower strait, and producing the desired curve instead of abrupt angles.

Now, during the passage of the head into the lower strait, I continually draw forward the anterior lip of the os, at the same time pressing the anterior portion of the os back under the os pubis with other soft tissues that protrude with the anterior portion of the os and neck, which narrows the antero-posterior diameter. As the os dilates under the forward and lateral pressure, during the interval of pain, the anterior lip of the os passes back under the arch of the pubis, and finally over the occiput; thus increasing the antero-posterior diameter and facilitating very much the passage of the head, also saving the contusion of the urethra, which so frequently occurs.

After this stage I further protect the urethra and tissues adjacent, by pressing upon the occiput forwards and downwards with the digital and middle fingers, each side of the urethra, until it passes from under the os pubis; thus avoiding the necessity of being called again to use the catheter, also preventing one of the causes of vesico-vaginal fistula, and lessening the danger of laceration of the perineum by the occiput rising in front of the os pubis, sooner than it would if the anterior portion of os with folds of the vagina and other soft parts protruded in front of the head. In this way the pressure on the perineum is lessened.

During the above management if the patient is weak and the pains feeble, to induce instinctive action of the uterus and abdominal muscles, I pass the middle and index fingers of the right hand (the palmar surface down) back with gentle pressure downwards against the perineum and vulva, producing the sensation of advance of the head.

By this management I have seen slow and tedious labor rallied into active and speedy delivery with safety to mother and child.

A Condensed Report of Two Hundred Consecutive Obstetric Cases Occurring in Private Practice.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY
JUDSON BRADLEY, M. D.

Physicians learn largely by and from the related experience of other physicians.

Firmly believing, as I do, that any class of cases to be of the highest value, should be reported, good and bad, consecutively and impartially, I have here followed my convictions, and have condensed from my notes these two hundred cases, and now offer the clinical facts as I have observed them in these cases, for the consideration of the members of the Academy.

All the data that came under my own immediate observation I can fully vouch for. Where the time of commencement of the labor was learned from the patients themselves the time given may in some cases be a little doubtful. In most of these cases I was called early enough to the patient to ascertain with reasonable certainty the time when the labor commenced. In a few of my cases no data were obtained until after the third stage of labor was completed, so that the notes are of necessity confined to the after-treatment only.

As I said before, these cases are consecutive, and comprise abortions, premature labors, and normal and preternatural labors. I shall give the number of each kind observed, and in the proper place will be found in detail the data and phenomena observed at the bedside.

Parturitions of all kinds: Abortions, 20; premature labors, 3; normal labors, 143; preternatural labors (instrumental delivery), 20.

Only one of the abortions gave much trouble from hemorrhage. In that case I tamponed the vagina of the patient, and easily controlled the hemorrhage.

Casualties to mother: Rupture of perineum, 1; deaths, 2.

The rupture of the perineum was down to, but not through, the sphincter ani, and was caused by instrumental delivery of a large child in a primipara patient thirty-eight years old. One death was caused, as I supposed at the time, by the rupture of some large blood-vessel. I could not get a *post-mortem*. The other mother died from puerperal peritonitis; which, by the way, was the only case of the kind that has occurred in my own practice.

Condition of uterus and placenta after the delivery of the child: Hour-glass contraction of the uterus, 5; partial inversion of uterus, 1; hemorrhage, concealed, 2; hemorrhage, open, 8; adherent placenta, 2.

Parturient cases complicated with disease before delivery: Complicated with severe malarial toxæmia, 13; complicated with measles, 1; complicated with syphilis, 1.

The malarial complication was not the casual malarial trouble that follows very many of the confinements in this section, but veritable fever and ague preceding and following the confinements.

The case of measles had a fever on the day preceding the confinement and broke out with the measles about half an hour after the baby was born. The mother recovered as readily as any case of measles ever did. The baby had the measles in a mild form subsequently and recovered. Most probably the infant contracted the measles *in utero*, for the period of incubation was too short for the child to have contracted the measles otherwise.

Strangely enough the syphilitic mother did not communicate the constitutional affection to the child; nor has the child any marked symptoms of scrofula or any kindred disease at this time —nearly nine years since his birth. But the mother died from the combined effects of syphilis and consumption two or three years since.

Nationalities: The parturients, so far as ascertained, belong to several different nationalities and are here classified as follows, the numbers giving priority:

French, 51; American, 38; German, 25; Irish, 19; English 11; Belgians, 9; Scotch, 8; Canadians (of English, Scotch or Irish descent), 8; Hollanders, 2; Swedes, 2; the Negro race, 2.

Leaving out of the account the abortions, these cases were divided as follows:

Primipara, 42; multipara, 126; not ascertained, 12.

The time occupied in the first stage of labor varied from eleven days in one case (which will be referred to again) to two hours.

The time occupied in the second or expulsive stage of labor varied from six hours to fifteen minutes.

Generally the third stage of labor was concluded immediately after the birth of the child. In a few cases only was the expulsion of the secundines delayed as long as twenty minutes.

The average duration of the first stage of labor in one hundred and ten ascertained cases of multipara was seven and one-third hours. This average excludes the tedious eleven-day case, and all the instrumental cases.

The average duration of the second stage of labor in the same number of multipara cases was forty-five minutes.

The average duration of the first stage of labor in thirty-six ascertained cases of normal primipara labor was ten hours.

The average duration of the second stage of labor in the same number of primipara case was one hour and twenty minutes.

The sex of infants born shows the preponderance of males to females in the ratio of 1⅓ to 1.

The presentations of the fetal head were all vertex and anterior—either right or left—except five which were breech or foot presentations. They were specially noted of: Left occipito-anterior positions, 105; right occipito-anterior positions, 31; Occiput of fetus *sub pubic* when first examined, 9; presentation of arm and head, 2.

Restitution: While the text-books teach that "restitution" is always toward the same side as that from whence came the primary rotation, I think I find in my cases sufficient proof that such is not always the case. My cases show that in twelve of the left occipito-anterior presentations, restitution was made to the right, or more than one-ninth of the whole; while in the right occipito-anterior presentations nine rotated to the left in making restitution, or nearly one-third of the whole. All the other cases followed the usual course.

The per centage of vertex presentations seems to fall below that of the table compiled by Velpeau (Dunglison's Med. Dic., Art. "Parturition"), but as his estimate was based on one thousand cases

I shall not presume to draw a close comparison; my two hundred cases are too insignificant. The experience which general practice in midwifery gives seems to be about the same throughout the civilized world, and the citations of fact in one or two hundred cases cannot materially alter the general averages.

Peculiar cases: Having stated somewhat crudely the prominent facts observed in these cases as a whole, it now remains for me to report a few of the cases more fully.

June 15th, 1869. I was called to see Mrs. M———, out in Hamtramck; she had labor pains, but not of a character to warrant her in expecting an early delivery. The os uteri was not at all dilated; she had had pains during the last night and to-day.

June 18th. Was called again to see Mrs. M———; condition much the same; she had had stronger pains during the last night, but they were not efficient when I saw her; the os uteri was dilatable and flaccid; I watched my patient some time, but I became weary of waiting, and finding no signs of further progress I left her; I saw no more of my patient from this time until June 29th, although I had heard by messenger, when I was called at two o'clock in the morning; I reached the house and found the condition of my patient much as it was on the 18th—eleven days before; while waiting for daylight, and thinking that I should probably have to leave my patient again (at about half-past four A. M.), there came a pain which was strong enough not only to rupture the membranes, but to send the baby into the world at once!

Now, I know that you are ready to ask, "Why didn't you give ergot, and rupture the membranes on the 18th?" I reply that I should do so now, and for several years that has been my practice, but at that time I was young in practice, and acted under the advice of an old and reputable physician who counseled me to wait. This is the case that has been méntioned as a labor of eleven days' duration. While this statement seems exaggerated, I am sure that I have not overstated the time; the patient had pains every day so hard that she got but very little sleep except when under the influence of anodynes. I may say in passing that I have seen several cases since that time which would undoubtedly have lingered in a similar manner but for timely interference.

Case thirty-second was that of the patient who died during labor, and for which no exact reason could be assigned. The case was reported in the *Detroit Review of Medicine and Pharmacy* for August, 1871. I could not obtain a *post-mortem*, and was consequently left to conjecture the cause of death as probably the rupture of some large blood-vessel.

Case one hundred and thirteenth was quite unique in my experience. Mrs. G——, the mother of three children, sent for me to attend her, January 14th, 1874. The following history was obtained partly from the statements of my patient and partly from my own observation. She menstruated last February 10th, 1873, and "felt life" about the 25th of June following, or about four and one-half months after the last menstruation. When about six months pregnant her husband for some provocation, real or fancied, maltreated and finally choked her; but as the maltreatment left no visible marks, little or no notice was taken of the affair. From that time, however, the fetal motions were not felt, and a profuse mucous discharge made the situation of the lady very uncomfortable.

At the end of the ninth month tactile examination revealed the fact that the cervix uteri was not even conical—indeed was not so far developed as is usual at the end of the eighth month of pregnancy. There was but little change in the breasts. During the succeeding two months there was very little change noticeable. The mucous discharge continued profuse and was palliated by vaginal irrigations of warm water.

I should say Mrs. G. had severe labor pains on the 15th of October, 1873, and the pains continued through the 16th. Again on the 9th of December following pains of a severe character troubled her some time, but nothing came of them except the suffering. On the 13th of January, 1874, Mrs. G. indiscreetly lifted a heavy tub with its contents. Labor began during the following night and continued quite severe. I was sent for early in the morning of the 14th, when I found her in a very bad condition. She was suffering from hard labor pains; her stomach was irritable, rejecting food and drink; and a burning sensation at the epigastrium, severe in its character, convinced me that my patient had acute incipient gastritis. Tactile examination showed me that a very thick band of fibers surrounded the os uteri and the whole cervix uteri seemed to have become hypertrophied.

I began the exhibition of chloroform by inhalation but it did little good. The patient would not inhale enough of it to produce even partial anæsthesia.

I found upon trial that small quantities of milk and lime water were retained by the stomach, and morphia and subnitrate of bismuth relieved the more urgent symptoms of the gastritis.

The labor pains continued without cessation through the 14th and 15th of January, until the morning of the 16th, dilatation having been completed, I ruptured the membranes and soon delivered my patient of a well grown boy, well-formed, but cyanotic around the lips, nose and eyes, while the circulation appeared good in the extremities. On closer examination I found that the right lung of the child was in a condition of almost complete atelectasis. The child lived only about twenty-four hours.

Fetal motion was felt by the mother two or three hours before the delivery.

The points of interest in this case are, the unusual length of the period of gestation, the absence of fetal motion after the sixth month of pregnancy until two or three hours before delivery. It was not possible to detect fetal motion with the finger in the vagina of the mother and resting against the fetal head. Neither could I by careful auscultation detect the beating of the fetal heart. However, there must have been a heart-beat, but the abdominal walls of the mother (which were very thick) must have prevented the sound from reaching my ear.

The extreme rigidity of the circular fibers of the os uteri, augmented as they were by considerable hypertrophy of the cervix, is another item of interest. Also the peculiar cyanotic appearance of the child after birth, for one could not help thinking that the child had the appearance of one strangled nearly to suffocation.

Case 130th was that of a German woman who began labor under the care of a midwife. I was called to deliver her. I found her in a half frantic state; pains constantly recurring, urged on by repeated doses of some preparation of ergot. The friends were standing around the bed waiting to see the woman die. The external genitals of the patient were frightfully tumefied, and just within the osteum vaginæ I found the right hand and arm of the fetus. Still deeper I found a fetal head presenting, but kept above the brim of the pelvis by the arm which passed behind the vertex into the vagina and prevented the fetal head from engaging.

Auscultation was negative, and I concluded from that and other signs, as well as the violence of the labor pains, that the fetus must be dead. I pushed the presenting arm and hand above the brim of the pelvis and tried to apply the forceps, but could not do it. I tried to turn by the feet but failed in this also. The patient had taken too much ergot. However, my efforts to turn had now changed the position of the fetal head so much that the presenting arm was easily placed in the hollow of the neck, and I was able to apply my forceps and deliver. This case also had an adherent placenta that had to be peeled off from the anterior segment of the uterus.

Case 132d relates the treatment of a child, just born, that had cyanosis neonatorum; when I first saw the child its surface was purple, the circulation bad, with a blowing tumultuous heart sound. The child was treated by posture as recommended by the late Prof. Chas. D. Meigs (Midwifery, Art. Cyanosis Neonatorum), viz., laid on the right side at an angle of twenty degrees from the horizontal, and left unmolested for several hours. This child became of a good red color during the night and afterwards did well.

Case 147th was that of a pregnant woman who, two days before I saw her, awoke in the morning to find that her face, arm and chest on the right side were paralyzed. The late Dr. Inglis had been called to the case and had prescribed bromide of potassium and ergot; but owing to press of business the doctor could not remain with the case, and requested me to attend and deliver the patient as soon as possible. The patient was seven months pregnant; the os uteri was partially dilated, and the uterine contractions increasing in force. The patient was delivered of a dead child about three hours after I first saw her, but she suffered meanwhile very much from the paralysis of the respiratory apparatus of the right side. When I attempted to remove the placenta I encountered a persistent hour-glass contraction of the uterus, which yielded only after repeated efforts. This patient was made gradually better by the exhibition of quinine, iron and strychnia, but never recovered the use of her right arm. She died during the last year (1877) of apoplexy, after three years of waiting.

Case 180th was that of a woman who had been insane during the summer preceding her confinement. I was called to see her September 7th, 1875; when I reached her she was in bed and evidently in labor, but denied that she had any knowledge of her condition. The labor was normal, but the placenta was completely adherent; I hoped that the insanity would pass away and the woman become sane after her confinement, but in this I was disappointed. She gradually grew worse.

Case 184th was that of the patient who died from puerperal peritonitis. The case ran much the usual course; the patient had a presentiment that she should die, and die she did, aided and abetted, as I believe, by a hop poultice which was applied in such a careless manner that the clothing of the person and of the bed were saturated, and the patient was made so uncomfortable as to defeat the good effect of all other treatment. In self-defense I should say that this poultice was applied in my absence and without my knowledge.

Case 192d was that of Mrs. S——, who began to be in labor December 13th, 1875. I was requested to attend this case by Dr. E. L. Shurly. About two o'clock A. M., December 14th, the labor pains were regular and hard, dilatation was half completed, and the membranes had ruptured. By four A. M. the dilatation had been completed, the pains were frequent and the woman suffering greatly; the fetal head remained high up—the occiput engaged in the superior strait—but made no progress. I therefore, in accordance with my usual practice—which is not to wait toö long before delivering if possible to do so—said to the husband of the woman that I thought best to deliver with the forceps; but, as the sequel will show, I did not succeed in effecting the delivery so easily as I had hoped. I applied the forceps with some difficulty, owing to a very sharp curve at the brim of the pelvis which formed a shelf against which the blades of the forceps caught. Having finally adjusted the forceps (Elliott's) I made traction, but there was no progress; I assured myself that the forceps were properly adjusted and again made traction still harder than before, when the forceps slipped; I readjusted the forceps and again they slipped, and so again the third time.

By this time the husband became impatient and started on a run for Dr. Shurly. After Dr. Shurly came, the patient was put under chloroform and the forceps re-applied. I depressed the handles more than before and made traction, again they slipped; and again and again with no better results. The blades of the forceps always slipped when powerful traction was made. Desiring further counsel, we then sent for Dr. T. A. McGraw, who arrived about 9 A. M. Under chloroform, I then applied a pair of forceps which Dr. McGraw had brought; but these slipped as badly as the others had done. Dr. McGraw tried to deliver, with no better results than I had obtained. Again I tried, but to no purpose; there was absolutely no progress in the descent of the fetal head. It was now decided to perforate and reduce the fetal head. At my request Dr. McGraw introduced the perforator, broke up the brain substance, and began the extraction. When his strength failed I relieved him, and at last, by dint of great effort, the head was brought so far down that a blunt hook was passed into the axilla of the fetus and one shoulder brought down; then the other shoulder soon followed.. The hips of the fetus then offered an obstacle to delivery; a strong traction was necessary to bring them down through the pelvis of the mother. By the time that the child—which was a large boy—was delivered the mother was in a critical condition from chloroform and exhaustion; we now placed her in a more comfortable position on the bed and waited until the uterus should make an attempt to expel the placenta.

In about ten minutes there were signs of reaction and I pressed the placenta out of the uterus, and, making traction on the chord, it was easily delivered. The uterus contracted firmly; a firm and broad binder was placed around the patient, which brought the contracted uterus into such prominence that it seemed as if something must have been left behind. To make sure that everything had been removed that should have been I introduced my hand into the vagina, which I found on a stretch; the uterus was entirely above the brim of the pelvis, and the promontory of the sacrum was advanced so near the symphysis pubis as to reduce the antero-posterior diameter of the superior strait to one and one-half inches. The uterus of course was made very prominent by the unusual advance of the curve of the spinal column. There was no unusual hemorrhage, notwithstanding the unfavorable circumstances.

December 14th, evening. The pulse of the patient was 120 per minute, temperature 102° Fahrenheit.

December 15th, A. M. Pulse 130 per minute, temperature 103° Fahrenheit.

December 15th, P. M. Pulse 135 per minute, temperature 103.5° Fahrenheit.

December 16th, A. M. Pulse 130 per minute, temperature 103° Fahrenheit.

December 17th, A. M. Pulse 120 per minute, temperature 102.5° Fahrenheit.

December 18th, A. M. Pulse 100 per minute, temperature 98° Fahrenheit.

The patient had a critical diaphoresis in the night. During those four days of quick pulse and high temperature the patient had full doses of tinct. aconit. rad. and quiniæ sulph. There had been for three days a pain, accompanied by considerable tenderness in the right iliac region; this was treated with turpentine stupes at first, and afterwards with very warm poultices; also anodynes or opiates to allay pain. When I found that the abdominal tenderness remained localized, I diagnosed pelvic cellulitis, which diagnosis was confirmed by a profuse discharge of pus from the vagina on the 19th. The recovery was rapid from this time, and the patient was dismissed quite well on January 3d, 1876.

The points of interest in this case are the great amount of instrumentation borne by the patient, the extreme narrowness of the antero-posterior diameter of the pelvis, the escape of the patient from metritis or metro-peritonitis, and the comparatively short time required for her recovery after the pelvic abscess discharged itself.

I may seem, Mr. President, to have been prolix; I know that details are dry and far less fascinating than the brilliant theories which brilliant men advance, but I offer these facts for what they are worth, and thank the Academy for their kind and charitable attention.

Irregular Contractions of the Uterus.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY
N. F. BROWN, DETROIT, MICH.

Prominent among the complications and dangers which may arise in the third stage of labor, are irregular contractions of the uterus.

The cause, or causes, of these contractions are obscure, as they have occurred in women of all temperaments and in all the forms of labor.

It is asserted by some authors that these contractions are met frequently after twin labors. Such has not been my experience, in several cases of twin labor, having had no trouble in the delivery of the placentas.

The use of ergot, tractions upon the cord, frictions upon the abdomen, stimulants, etc., have been assigned as causes of these contractions; but it is evident, beyond doubt, that irregular contractions have taken place where there has been no possible chance to assign them to any of the above-named causes. Hence we must look for some intrinsic cause for these irregularities; or, in other words, there is that condition of the womb, necessarily existing without which no external agent could produce an irregular contraction. As you all are aware, the uterus is a pyriform body with a triangular cavity terminating below in a constriction known as the os internum, which separates the body from the neck, and the canal of the neck terminates in the os externum. This gives us a pear-shaped organ with a convexity behind and a somewhat flattened surface in front; this is the uterus in the non-gravid state.

With the development of pregnancy there is a great change in the tissues of the uterus, the mucous membrane becomes thickened and hypertrophied; the tissue proper becomes true muscle, retaining in a high degree contractile power. While these processes are going on, the uterus is changing in shape and size; so that, at the end of utero gestation, the neck is obliterated, and we have a *spheroidal*-shaped body, waiting, as it were, to assume its original position, which it must and will do, when there is nothing to disturb the physiological phenomena of labor.

Now, what is it that produces this deviation from the normal condition? I am not aware that there have been any *post-mortem* examinations of women who died shortly after delivery, with any of the forms of irregular contraction; hence I believe that our knowledge of the cause of this trouble is merely hypothetical. At the close of parturition the decidua vera, which, as you are aware, was the original mucous membrane, is exfoliated and thrown off, leaving the uterine walls covered with a light film, which is the formation of a new membrane. It has occurred to my mind that in certain cases there is a pathological condition which has prevented the formation of the new membrane till very late in gestation, thus affording but little protection to the muscular fibers of the uterus against the contact of venous blood during labor; and as a result we have spasm of the uterus instead of normal contraction; and as the mucous membrane is thinner and more delicate at the os internum than at the fundus, this may be the reason why the "hour-glass" contraction takes place more frequently than other forms of irregular contractions; and this appears the more plausible, as the decidua vera is thrown off at the internal orifice, having no connection with the membrane of the cervical canal.

The great change in the uterus from the non-gravid to the gravid state, produces causes and effects upon the nervous system not well understood.

It seems to me probable that there may be pathological changes taking place during the parturient state, in the tissues of the filaments distributed to the pelvic viscera, resulting in paralysis of the ultimate nervous filaments, or a portion of them; hence, want of harmonious action in all the forces, producing irregular contraction. In leaving this part of the subject, I venture the opinion that irregular contractions of the uterus, the same as eclampsia, are the result of some morbid changes or morbific agents in the system; and that external agents may be auxiliary to their production.

I have no statistics to show the frequency of the occurrence of either irregular contractions or eclampsia, but in my own practice they have been equal.

There are different forms of contractions mentioned by authors: spasm at the os externum, at the internal orifice, of the body of the womb—to which the terms "encasement" and "encystment" are applied, according as the uterus contracts upon the periphery or the mass of the placenta.

Beyond doubt the form usually met is spasm at the os internum, and this condition is easily recognized after one's first experience.

The young obstetrician, or beginner in practice, frequently passes along easily with a number of obstetrical cases; but now he meets a case in which the placenta is retarded. He begins his examinations and manipulations, which stimulate the flagging uterus, and the placenta is expelled; he congratulates himself upon his skill in overcoming that dreaded monster, the "hour-glass contraction," and his complacency of mind in reference to his theoretical and practical knowledge is not disturbed until he meets the veritable hour-glass contraction, which affords a lesson not soon forgotten.

The loss of blood is generally considerable; although but few, if any coagula are thrown off, owing of course to the small orifice of the stricture. Yet in cases of encystment there is no flowing, owing to the closure of the orifice—where there is no portion of the placenta strangulated.

In the majority of cases of hour-glass contraction, a portion of the placenta is strangulated varying in size from a large walnut to one-half the placental mass.

In my limited experience, I have not found a large portion of placenta constricted, but generally about the size of a hen's egg or less.

The position of the uterus is peculiar in this form of contraction. Pressing the hand upon the abdominal walls, two distinct tumors will be recognized, with a constriction separating them, and the whole mass occupying an oblique position from left to right. There is a difference of opinion among obstetricians as to whether the placenta is adherent or not in these cases; but I think that evidence is stronger in favor of non-adherence.

In regard to treatment, the accoucheur should be guided by the condition of his patient. If there are no symptoms demanding prompt removal, he should wait for several hours if necessary, for the spasm will usually relax with the use of antispasmodics; but if these measures fail, what is to be done? It seems to me the only thing that would afford the woman any probable chance for her life would be the administration of an anæsthetic, and dilatation of the stricture.

On the other hand, if there is continual flowing, or any condition of the patient demanding the removal of the placenta, he should attempt the dilatation of the stricture by carefully introducing the fingers; and then with firm, gentle, continuous pressure, the whole hand is admitted, gathering the placenta in the palm of the hand, withdrawing carefully, and supporting the fundus.

The above is the treatment generally recommended by authors, and found available by practitioners; yet exigencies may arise in which the physician is not permitted to carry out any definite plan of treatment, as the following case will illustrate:

In April, 1877, I was called to see Mrs. B. in labor with the third child. As I entered the room she was engaged in hard, expulsive pain, sitting in an easy chair; and, hastily making an examination, I found the head pressing the perineum. I informed her that her child would soon be born, and assisted the nurse in placing her in bed; but to this she objected, preferring to sit in the chair, as she did not believe that her child would be born for several hours, as she had had only three or four pains before my arrival.

The second pain, after being placed in bed, expelled a vigorous male child, thirteen pounds in weight.

This labor was rapid—the child being born in a little less than one hour from the first feeling of pain.

I tied and cut the cord in the usual manner; and while so doing, observed that there was continual flowing without any coagula passing. Placing my hand on the abdomen, I readily recognized an hour-glass contraction, from the peculiar shape and position of the uterus. As this was a case demanding prompt action, I called the husband into the room, and hastily explained to him the situation and the necessity for immediate action, directing him to support her by the shoulders while I attempted to dilate the stricture.

Passing in my hand, I found a small portion of the placenta strangulated, and the stricture barely admitting the index finger. I attempted gradual dilatation, but as there is severe pain attending such procedure, the woman became frightened and desperate; and, as the stricture was unusually rigid, it was impossible to speedily dilate, but I finally succeeded in passing through two fingers; when with an Herculean effort, she disengaged herself, and bid defiance to any further efforts to remove the after-birth.

When I saw that she was determined to free herself, I made a strong effort to pass my hand through the stricture and seize the placenta, but I failed in this, bringing away the cord and constricted portion.

During all this time, there was continual loss of blood, but as soon as my hand was withdrawn the flowing ceased, and the orifice of the stricture closed, thus changing from incomplete to complete encystment. I entertained hopes that during the night, with the use of anodynes and antispasmodics, the spasm would relax; but in this I was disappointed.

Belladonna and hyosciamus in suppositories, rectal and vaginal, were used through the night, but all to no purpose.

At eight o'clock the following morning she had rallied from the shock of the previous night, but very emphatically informed me that no attempt should be made to remove the after-birth.

Through entreaty and persuasion, and making a solemn promise that I would not attempt to remove it, she permitted me to examine the state of the uterus, which I found completely closed, firm and rigid, at the inner neck ; there had been no loss of blood during the night.

I now explained the danger of her condition, and tried to induce her to take ether and have the placenta removed ; but no entreaty upon my part, or that of her husband and friends, would induce her to have anything done. I requested the privilege of bringing in other physicians, but this was positively refused.

I pushed the anodynes as far as I dared, the skin became soft, the pulse and temperature normal, but the uterus remained firmly contracted.

There was no change in this condition of things till three days after delivery of the child, when the fever and temperature ran high, and the lochia very offensive, but not profuse.

I earnestly pleaded with her again to have something done, but failed as before. ' I ordered warm disinfecting lotions thrown into the vagina, and by stratagem induced her to swallow a potion, which contained fifteen grains of sulphate of quinine, which produced the "ringing in the ears," but decidedly lowered the temperature, and improved the general aspect of the patient, but the uterus still remained hard and contracted. After she had taken the quinine, she would have nothing done for her except the vaginal lotions.

On Thursday morning (the child born on Sunday), the condition of the patient remaining unchanged, except the temperature did not rise after she had taken the quinine, I procured the consent of her husband to bring in help, and administer ether, and remove the placenta.

After driving about the city for nearly two hours in quest of some professional brother, I accidentally met Dr. Shurly, who kindly consented to go with me. During my absence one of the curses of the land was brought in; an ignorant, meddlesome, uncouth personage, termed a "midwife." This woman informed the patient and her friends that the after-birth was not remaining, and all the woman needed was a little paregoric.

When Dr. Shurly and I arrived, the patient commenced screaming and raving like a maniac, and would have run out of the house had she not been forcibly restrained, and we were comdelled to leave the house in order to have her quiet down.

Through the influence of the midwife, another physician was called in Thursday evening, and I was not permitted to see the patient afterward, but learned from the husband that the physician in attendance informed him that on Friday her temperature was "one degree above natural;" but the unfortunate woman died on Saturday afternoon, with the placenta remaining in the uterus.

This lady was born and matured in France; but soon after her arrival in Michigan our malarial climate told heavily upon her health, and the great change in her physical appearance annoyed her greatly, and she became anæmic and hysterical; but after marriage her health improved, and she had vigorous, robust children. Yet, in her last pregnancy, she frequently complained of not "feeling well," although she had no treatment during that time.

The points of interest in this case are the rapid labor, unusual rigidity of the uterus, and the absence of any definite cause for the contraction.

Her social and domestic relations were happy, and I could elicit nothing, as an external agent, which should produce the spasm. I gave no medicine or stimulant, made no traction upon the cord, and as she had not been annoyed or excited in any manner during or before her labor, I respectfully ask the opinion of the Academy as to the cause of the contraction in this case, and its persistent rigidity for several days, ending in death.

Reports of Societies.

Detroit Academy of Medicine.

JANUARY 22, 1878.

The President, Dr. Connor, in the chair.

VERBAL COMMUNICATIONS.

Dr. Carstens had recently been called to an arm presentation, which had been for some hours in the hands of a midwife. He tried every means to replace the arm but failed; he then put the patient in the knee-elbow position, and succeeded in replacing it enough to bring down the head, when he immediately applied the forceps and delivered the woman of a dead child. He could not say from one case whether the success attending his efforts was due to *the knee-elbow* position or not, but thought that he should try it in the future in all cases of shoulder and arm presentations that might occur in his practice before resorting to version.

Dr. Johnson related the case of a lady who had suffered repeated miscarriages, caused by fatty degeneration of the placenta. There was no history of syphilis. Her last confinement was in October, 1877, at full term, the child dead, with hydro-cephalous head, and enormously developed shoulders. The placenta had undergone complete fatty degeneration.

Dr. Andrews thought that repeated miscarriages with placental degeneration were due in the first place to active placental hyperæmia, etc. (*See* LANCET, *page 180.*)

Dr. Carstens said that in such cases he used chlorate of potash, and believed it a valuable remedy.

Dr. Connor remarked that he had used it in two cases unsuccessfully.

Dr. Shurly reported a case of lumbago which, so far, had resisted all treatment. He was now trying morphine and atropine hypodermically.

Dr. Carstens had seen great benefit follow the use of the galvanic ascending current in similar cases.

Dr. Johnson said that he accidentally discovered the following method of treating painful hemorrhoids:

Having a case to treat, he anæsthetized the patient, and injected into one of the piles a few drops of a mixture of olive oil (two parts) and carbolic acid (one part), intending to destroy it by that means, but, noticing no change in its appearance, and wishing to relieve the patient at one operation, he snipped it off. No bleeding occurred. He then repeated the process until all of the hemorrhoids were removed. One of them was as large as a walnut. There was no hemorrhage. The patient made a rapid recovery, and with very little suppuration of the parts.

Dr. Walker had used equal parts of carbolic acid and tincture of iodine in the treatment of hemorrhoids very successfully.

Dr. Bradley thought that five or six drops of the pure acid injected into each pile was an improvement over the old method. It was more effectual and more painful, although the pain only lasted from ten to twenty seconds.

Dr. Shurly had seen, in children, several cases of catarrhal trouble of the lungs, which he thought were caused by malaria. In some of the cases there were hallucinations. One little patient "saw dogs;" another had a "vacant stare," and was much frightened by an imaginary policeman; and in another case they were marked by stupor. The pupils were dilated in all the cases; there was not much fever, and all recovered.

Dr. Bradley related a case that commenced as a simple intermittent, which later presented symptoms of meningitis, dilated pupils, etc., which symptoms all disappeared, to be followed by suffocative catarrh, from which the child is now dying.

Berrien County Medical Society.

The fourth annual meeting of the Berrien County Medical Society convened at New Buffalo, Wednesday, February 13th, at 4 o'clock P. M. The Society was called to order by the president, Dr. Stratton.

Drs. Riley and Marvin were admitted as members.

Dr. Bowman gave notice that he would offer a resolution to the effect that the Society take some measures towards suppressing quackery. Dr. Bowman presented a case of *fistula in ano*.

Dr. Neal introduced a resolution, making incumbent on the members of the Society, to require semi-annual settlements with their patrons of all accounts. After a lengthy discussion it was finally passed.

Adjourned for one hour, for supper.

Society called to order at 7 o'clock, when Dr. Dunning read a very interesting paper on "Epidemic, Endemic and Prevailing Diseases," showing less malarial diseases than former years, while consumption had increased in some parts of the county. Scarlet fever and diphtheria had prevailed as an epidemic in some parts of the county. Paper was ordered published in the LANCET.

Dr. Bowman then introduced his resolution which read as follows:

Resolved, That the members of this Society use their influence in impressing upon the legislators from their respective localities the necessity of the passage of an act for the regulation of the practice of medicine in this State, having for its object the suppression of quackery.

Resolved, further, That the delegates to the State Medical Society be instructed to bring the matter before that body for their deliberation at the next meeting.

After a free discussion of the matter, the resolution was passed.

The president then read his address on the sanitarium of St. Joseph, giving vital statistics showing it to be one of the healthiest places in the world, for, out of a population of 3,000, there were only twenty-nine deaths in 1877.

Papers were read on diphtheria and puerperal convulsions, which were thoroughly discussed. Dr. Neal reported a severe case of convulsions commencing before delivery, which was done with forceps, and continuing a number of hours after, with good recovery. A paper was read by Dr. Sovereign on the reasons why the practice of medicine should be regulated by law. Paper ordered published in DETROIT LANCET.

The following officers were elected for the ensuing year: Dr. Bowman, president; Drs. Neal and Barringer, vice-presidents; Dr. B. C. Smith, secretary; Dr. Sovereign, treasurer.

After the various committees were appointed, the executive committee appointed Drs. Bonine, Riley and Marvin to prepare papers for next meeting. Dr. Dunning was appointed a committee on epidemic, endemic and prevailing diseases.

Adjourned to meet in July.

B. C. SMITH, *Secretary.*

Correspondence.

Etiology of Insanity—A Reply to Dr. Bradnack.

With all due respect for the opinions of Dr. Bradnack, who has so freely expressed his views in January number of THE LANCET, on the question of insanity, we beg leave to offer a few points in reply. This is certainly a question of importance, since immense sums are annually expended in each State for the care and treatment of the insane, and the subject has occupied the attention of so many eminent physiologists. Now, if Dr. Bradnack's views are correct, all this expenditure is useless, and the wisdom of the day is valueless on this subject. He takes exception to the views of such eminent authorities as Bain, Maudsley, Brown-Sequard, Flint, and Hammond. He says, "some of their deductions are as yet pure assumptions." Now, let us examine the grounds on which he stands, and see if his deductions are anything more than assumptions.

He denies that a "physical lesion is always the necessary first cause of mental disorder." To understand fully his position, let us see what are the views of the above-mentioned writers on insanity. They are very well expressed by Dr. Maudsley in his work, "Responsibility in Mental Disease." "Insanity," he says, "is, in fact, disorder of brain producing disorder of mind." * * "The opinion that insanity is a disease of the so-called immaterial part of our nature, we may look upon as exploded—even in its last retreat." * * "To the argument that madness is produced sometimes by moral causes, which must be admitted, it is sufficient to reply, first, that long continued or excessive stimulation of any organ does notably induce physical disease of it, and that in this respect, therefore, the brain only obeys a general law of the organism; and, secondly, that it is possible to produce experimentally, by entirely physical causes, mental derangement exactly similar to that which is produced by moral causes." * * "The aim of the physician in the treatment of insanity is to bring the means at his command to bear, directly or indirectly, on the disordered nerve element. But, in striving to do this, he soon learns with how many bodily organs and functions he has really to do." Here we have the causes and treatment of this great malady laid down by eminent authority. Dr. Bradnack questions the accuracy of their conclusions, and proposes, on his theory, a treatment which, since the dark ages, has met with no countenance among medical men. Shall we give up all therapeutical means in insane cases, and pray over our patients, hoping to drive out the evil spirit? We thought the Indian medicine man extremely foolish, but now it is proposed to return to his system. We make these remarks in all honesty, and not in any spirit of skepticism or mockery of religion. He says science should not leave the path of fact to wander in the fields of speculation. True, but the searcher after truth may reason from facts established. Besides, do we not every day accept as accurate, conclusions which have never been demonstrated by actual experiment? We must make the best of what facts we have bearing on any subject. We have as much right to assume that alterations in the molecular arrangement of brain structure always exist in cases of insanity, as you have to assume that extraneous psychical influences cause derangement of the mind. The nature of the mind, soul, thinking principle, or whatever you may term it, is not understood. It can not be weighed in a balance, or measured with a rule. But we know that derangement of the mechanism of any piece of machinery causes derangement of its functions. We must admit that extraneous mental influences will produce disorder of the mind; but the theory that they act directly, and not by producing changes in the physical organization, is entirely unfounded. The existence of the human mind or spirit as an entity, *per se*, can not be proven by scientific means. Mind is, without doubt, a function of the brain. Injure the brain in any way, and you injure the mind. It is not necessary that the injury to the brain be of such a nature as would be detected by the microscope to cause a disturbance of the mental faculties. There may be a disturbance of the molecular arrangement of the brain substance sufficient to cause derangement of its functions. The fact that all forms of mental derangement may be caused by purely physical forces, is strong argument against the doctrine of psychical causes of insanity. Alcohol, chloroform, and other agents, will produce mental derangement, though temporary, yet in all respects similar to that produced by moral causes. They both act in the same way, by producing changes in the brain structure.

The fact that human beings act and speak like demons when insane, is no argument in your favor. Do not men sometimes act, when insane, in the most religious manner? Are there not praying maniacs as well as cursing ones? Have we not seen persons regarded as highly moral and decent use vile and obscene language when under the influence of narcotic drugs?

We cannot see that Shakspeare's ideas on this subject are of any force. He was not a scientific man, and cannot be taken as an authority on such subjects.

We believe that all forms of insanity, and even all forms of crime, have their origin in the physical system. Were we perfect men physically we would be perfect mentally. We look forward to the time when criminals will be treated therapeutically and not by punishment. This may seem Utopian, but the wild speculations of one age often become the living facts of a succeeding age. If there are any laboring under the idea that insanity, or any other disease, can be cured by praying, they should use that means; but until we have further proof, let us not neglect to attend to the body both by remedies and hygienic applications. The physician, if he performs his duty as he should, is the greatest factor in the work of reforming humanity.

BARRY, IOWA. G. DALLAS LIND, M. D.

Legalizing Prostitution.

I take occasion to say a word on the subject of legalizing prostitution. We are by no means justified in throwing out of the scale the fact that no virtuous mother, wife, sister or female friend in all the land could be found who would view with anything less than loathing the idea of legalizing or licensing the unholy traffic referred to. But, for the moment viewing the subject entirely from the sanitary point of view, let us note the experience in England where there is a license law with "local option" clause.

In the few cities that granted licenses it was found at the close of the year that disease had diminished, and that the number of prostitutes had decreased somewhat. The advocates of the law at once rushed into print with the facts and figures in justification of their wisdom and foresight! The result was to bring out statistics showing that where there was a decrease in the licensed towns, the increase was more than correspondingly large in the adjoining cities that had not granted licenses, the fact being that the restrictions of the license law, viz., compulsory medical examinations, registry, etc. (the chief advantages claimed by advocates of the law), had operated simply to induce a portion of the "town women" to change their location to cities where no license law was in operation. Nor can it be concluded therefrom that if *all* cities made use of the law, crime and disease would decrease in all. Such women *will ply their trade* any way as long as it is possible. If the annoyance of registry, enforced examinations, etc., can be avoided by simply moving to a neighboring city some will elect to change their location, but when this choice is no longer open they will simply remain and endure the law until death, reform, old age or strict prohibition shall stop their traffic.

No *scientific truth* can ever conflict with a *religious truth*, and I predict that science will never prove that to compromise with wrong, or to legalize an evil in order to lessen it, will ever attain the object sought. Very sincerely,

C. E. PAGE.

BEDFORD, ME.

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D.

Practice of Medicine.

TREATMENT OF DELIRIUM TREMENS.—C. S. Wills states, in the *British Medical Journal*, February 2, that he has used capsicum for more than twelve years in the treatment of *delirium tre-*

mens with unvarying success; it has never failed, no matter how violent the patient may have been. In extreme cases thirty grains in bolus may be given every hour, but milder cases simply require smaller doses. J. D. M.

ON REPORTS OF FATAL AND SHOCKING RESULTS OF VACCINATION.—(*The Medical Record.*)—Dr. Henry Austin Marten, M. D., Boston, Mass., after thirty-three years study and experience in these matters, is convinced that at the bottom of ninety-nine hundredths of the most terrible stories against vaccination will be found either a gross lie or exaggeration, or some inexcusable malpractice, and that vaccination, properly so called, either with humanized or bovine virus, has really nothing to do with them. That the terrible cases now and then, far too often, appearing in the journals are the result of (1) the inoculation of animal matter in a certain condition of putrescence; (2) the vaccination of patients in a very morbid condition who should not be vaccinated at all; (3) the vaccination of elderly or very young persons, and their subsequent exposure to protracted and extreme cold; and (4) the vaccination of patients in a poisonous atmosphere, forgetful of the fact that a volatile atom of contagium is just as inoculable as the particle of contagium contained in the albuminous coating of a charged vaccine-point. H. A. C.

SANTONINE POISONING.—Prof. F. Forchheimer (*The Clinic*, January 5th, 1878) summarizes the symptoms induced by a toxic dose of santonine as follows: "Sopor, the eyes fixed, pupils dilated and without reaction, the lips red and swollen, the respiration stertorous, pulse slow, skin cold. These symptoms become more and more intense, and suddenly convulsions set in, which rapidly extend to the muscles of respiration, so that breathing becomes very slow. Irregular and long pauses occur in which the breathing seems to be entirely stopped. With all this the patient usually passes urine involuntarily drop by drop."

Chloral hydrate is antagonistic to santonine, and may be used carefully. Inhalation of ether controls the spasms.

MENTAL ALIENATION AND DIABETES.—(J.Cotard, *L'Union Medicale*, October 18, 1877.)—What are the relations between diabetes and mental alienation? The nervous derangements accompanying diabetes have been described for some time; it is proven that glycosuria, like many other nervous diseases, may be the result of violent emotion. Griesinger, Jaccoud, Andral and others have reported striking examples. As to the opposite action of diabetes upon the mind, it is not so well established. The influence which every disease which the patient knows is chronic, and cured with difficulty, exercises, that to which the loss of the sexual power and the muscular weakness, which torments every diabetic patient, give rise, must all be set aside in considering this point, for these conditions can contribute to produce the melancholy discouragement and the *tædium vitæ* which have been occasionally observed in these patients. Sometimes, however, characteristic and truly vesanic intellectual troubles appear. These cases are rare, and the diagnosis is the most certain, where we see the diabetes alternate with neuralgias and different forms of mania, either in the same individual or in different members of the same family.

Here are two cases: In the first (Sergen's) we have a woman, first suffering from melancholy, afterwards improving some, then presenting stages of great excitement, occurring at intervals. She finally becomes diabetic and dies of the disease after seventeen months; a region of capillary apoplexy is found in the middle lobe of the right hemisphere.

In the second case (Cotard's) we have a young man thirty years of age who, under the influence of ideas of persecution, flees from his father's house and buys a dagger and revolver to defend himself from imaginary enemies. Placed in an asylum in October, 1872, the following symptoms are noted: Hallucinations of hearing, manifested by his gestures, attitude and personal conversations; ideas of suspicion and persecution manifest; melancholy mood. From April, 1873, these symptoms alternate with short periods of excitement; he runs, cries and jumps about in an extravagant manner. During the year 1874 remissions are evident, during which the patient reads serious books, in which he appears interested; the periods of excitement become rarer and of very short duration. In the commencement of 1875 it is noticed that he drinks large glasses of wine and water between meals; the urine is examined and shows an abundant precipitate with Bareswill's solution. The patient now complains only of general weakness; he is pale and thin, marked derangements of sensibility and of the organs of sense are discovered, but no motor troubles. The appetite is considerable; subjected to an animal and tonic regimen and to the alkalies, the patient shows marked improvement; his color and strength return. The urine, however, always contains a large amount of sugar. In the last months of 1875 until he left (June, 1876) his mental condition continued to improve. The periods of excitement did not return; the ideas of persecution, etc., and the hallucinations of hearing disappeared and intelligence reawakened.

The observation is particularly interesting from the seeming coincidence which appears to have existed between the amelioration of the mental affection and the production of sugar in the urine.

ATROPHY OF THE STOMACH.—Dr. Samuel Fenwick (London *Lancet*, October, 1877) speaks of atrophy of the stomach. Dr. Handfield Jones first called attention to the changes which the glandular structures of the stomach undergo. The secreting tubes frequently become atrophied and their places filled with a fibroid growth.

Gastric atrophy occurs:—

1st. Independently of other disease.

2d. As an accompaniment of cancer in various organs.

3d. As a partial atrophy combined with structural changes in other parts of the organ.

The symptoms in the first class of cases are those of a progressive anæmia *not* accompanied by emaciation. These cases occur in persons in middle life, are not benefited by treatment, and terminate in death.

The clinical symptoms of a typical case are a gradually increasing illness, feeling of great weakness. The patient is unable to make physical exertion, occasional numbness in the legs, but no appearance of paralysis. Suffers palpitations on the least exertion. Patient has a pale, yellow, cachectic look, lips, tongue and throat bloodless, appetite bad; suffers from flatulence, and occasionally from bilious vomiting. The bowels are constipated. The pulse is small and feeble. The heart and lungs appear normal, the liver and spleen of the usual size, and there is no enlargement of the thyroid or lymphatic glands.

The stomach was not dilated, and no abdominal tumor can be felt. The urine free from albumen and sugar.

The number of white corpuscles in the blood seems diminished. The *post-mortem* appearances of the stomach are not those of solution after death, but rather of a chronic wasting before death, and in some instances not a single section will show healthy structure under the microscope.

In the second variety the clinical history is more that of cancer, while in the third we have the symptoms of the first variety accompanied by those of a chronic inflammation of the connective tissue of the stomach. The diagnosis of the second and third forms—partial atrophy—is not so difficult when taken in connection with other diseases from which the patient may be suffering, but the first variety—"idiopathic anæmia"—cannot be fully diagnosed until the patient has been under observation some length of time.

Treatment is of no benefit in a curative sense.

CYSTICERCUS OF MAN—DEVOTION TO SCIENCE.—(*L'Union Medicale*, October 27, 1877).—M. Redon lately presented to the French Academy of Sciences, a memoir upon this subject, which is interesting from several points of view. From a number of medical observations gathered from patients and cadavers, it appears that man, like the hog, can become completely infested with cysticerci. Is the crysticercus of the former identical with that of the latter? This question, which appears to be answered in the affirmative from the anatomical study of the scolex, has given rise to numerous controversies. After many affirmations and negations the learned Bertolus admitted that the discussion would always continue, as long as we only had the scolex as a term of comparison, and that to settle the question, it was absolutely necessary to examine the tape-worms coming from these cysticerci. In admitting that the human cysticercus represents the second stage of the *Tænia solium*, the perfect state of this parasite, according to all probability, would be only found in the intestines of man; therefore, it was necessary either to ignore the transformations of the larva, or, to offer one's self as a "locus experimenti." M. Redon, determined to settle the question, swallowed, in some lukewarm milk, four cysts taken from a human cadaver infested with cysticerci. Now, as these cysticerci might be those of a tænia carried by an animal in close relationship to man, and as, moreover, if the human and porcine cysticerci were but one, the same animal might carry the parasite in the two states cystic and complete, he gave a number of these same cysts to hogs and puppies.

Of the three subjects, man alone furnished a favorable *nidus.*

The hogs and dogs which died or were killed at different periods from the time of injection, on the closest examination possible, revealed no trace whatever of the parasite.

The doctor, after waiting three months and two days, finally discovered some links in his stools. These pieces, examined by Prof. Lortet, one of the highest authorities in helminthology, were pronounced to be the links and eggs of the *Tænia solium.* Putting himself under treatment, the doctor then expelled a complete worm. The result of these researches puts an end to the discussion, concerning the nature and development of the cysticercus of man, and, moreover, offers a striking exception to that great law of parasitism of alternating generation, which has thus far appeared absolute, viz: that the same parasite cannot attain its complete development in the same individual or in two individuals of the same species. The doctor still continues to offer the exception, as he occasionally passes a tape-worm, or portions of them, which, however, is not strange, since he swallowed four cysticerci.

Obstetrics.

EFFECTS OF PERCHLORIDE OF IRON ON THE UTERUS.—Dr. Herman exhibited to the "London Obstetrical Society," the uterus of a woman who had died of post-partum hemorrhage. The organ was first injected with a solution of perchloride of iron—one part, to four of water. This was effective for a short time only; and then a rag, soaked with the saturated solution of the perchloride, was pushed into the uterus. The upper part of the organ, which had been bathed by the weaker solution was, on section, unaltered to an extent appreciable by the naked eye, though it was ascertained by chemical tests that the iron had come in contact with it. The lower part of the uterus, which alone had come into contact with the saturated solution, was black and corrugated; this change extending through the inner three-fourths of its thickness. Dr. Cleveland had used a solution of the strength of one to three, and thought it effective. The undiluted solution might act as an escharotic. Dr. Hayes said that the specimen showed that very little of the injection had reached the fundus, from which the blood flowed. In all cases of post-partum hemorrhage where perchloride of iron was used, the whole of the bleeding surface should be bathed by the fluid. In order to insure this the uterus should be emptied of clots, and the injecting pipe carried on the hand, and the injection directed against every part of the surface. By introducing the hand into the uterus, and retaining it there while injecting, a free exit was obtained for the fluid. He used equal parts of liquor ferri perchloridi and iced water, and had most satisfactory results. Dr. Barnes said the point of the syringe should be carried to the fundus. This could only be insured by introducing the hand into the uterus. One to four was a good strength, but a stronger solution might be used if necessary; but it should not be escharotic. The test for its use was the possibility of exciting reflex action. When this could not be done, perchloride of iron should be used. J. D. M.

THE USE OF THE FORCEPS IN CERTAIN CASES WHERE THE OS UTERI IS ONLY HALF DILATED.—A. M. Fauntleroy, M. D. (*American Journal of Obstetrics*, January, 1878), advocates the use of the obstetric forceps before the os uteri is dilated, in the following cases:

1. When the head descends *immediately* without the intervention of the liquor amnii.
2. In placenta previa (Dr. J. S. Eshleman, of Philadelphia, is said to have been the first to apply the forceps in placenta previa through an os uteri of only one and a half inches in diameter).

The doctor would also resort to the forceps in the following cases:

1. When the fetal head, from malposition or inertia of the uterus, may become fixed.

2. When labor is retarded by either absolute or relative disproportion of the fetal head to the pelvis.

3. In all cases of ante-partum convulsions, where there is sufficient dilatation.

4. In occipito-posterior positions, where traction alone, or traction and compression will assist rotation to the front.

5. In some face presentations, and in some cases of pendulous uterus.

6. When the vagina is so rigid as to seriously obstruct labor.

7. In breech and foot presentations, where the fetal head is not readily delivered, the forceps may be used as recommended and practiced by the late Dr. C. D. Meigs, of Philadelphia.

The doctor's method of application is that called the pelvic, *i. e.*, application of the blades of the forceps along the sides of the pelvis, and making traction according to the "curve of Carus."

USE OF THE FORCEPS.—Fordyce Barker, M. D. (*American Journal of Obstetrics*, Jan., 1878), says that the use of the obstetric forceps is increasing rapidly among the English-speaking people. Formerly, the authorities in medicine and obstetrics were afraid to use the forceps, and only resorted to them as the last resource.

From an average application of the forceps of 1 in 481 confinements by Ramsbotham, Churchill, Lever and Beatty, a striking contrast is drawn with Naegele, Caro and Siebold, who averaged 1 forceps delivery in each 17 confinements.

Churchill delivered by craniotomy 1 in each 149 cases, while Naegele resorted to craniotomy only once in 1,711, and Siebold in only 1 in 2,093 cases.

The reasons assigned for the fear of the forceps, which seems to have prevailed among English obstetricians, are these:

1st. They were ignorant of the mechanism of labor.

2d. While they greatly exaggerated the danger to the mother and the child from the use of the forceps, they did not recognize the danger to both from prolonged labor.

3d. They failed to make a distinction between the difficulty of application at the brim of the pelvis, and the comparative ease of application when the fetal head is in the inferior strait.

The doctor says that "all must agree that there are dangers in the use of the forceps when the fetal head is at or about the superior strait, but the question to be considered is whether the safety of the mother is not greatly increased by early delivery rather than by following the teachings of the older writers, who never used the long forceps, but always resorted to the perforator and craniotomy, thereby inevitably sacrificing the life of the child."

The three essential points to be considered by those who would safely deliver from the superior strait are:

1st. The operator should thoroughly understand his case and comprehend the cause which renders such instrumental delivery necessary.

2d. The mechanism which will overcome the cause should be fully understood.

3d. The operation should be performed slowly. The doctor is never less than half an hour, and sometimes a full hour, in bringing the head down from the superior strait. The instrument should be sufficiently strong and properly curved so as to fulfill all the indications in the case. The doctor prefers Simpson's forceps.

As to Tarnier's new forceps, the doctor has tried it once, but not to his satisfaction, and, therefore, reserves his opinion. Theoretically, the new forceps is a good improvement.

Ophthalmology.

ATROPHY OF OPTIC NERVES FROM A SLIGHT FALL.—Mr. Cheatham, in the *American Practitioner* for December, 1877, reports the case of a lad who fell from a fence only five feet high, striking upon the back of his head. He complained very little at the time, and went on playing in a short time, as if nothing had occurred. Five weeks afterward in crossing the room it was noticed he stumbled over the furniture. When examined by the doctor at that time, vision, slight perception of light; no symptom of any intra-cranial trouble; health good. When last seen and examined the nerves were white and atrophied; vessels small and vision = °. The doctor in conclusion says: "These cases are of interest to surgeons and practitioners, as well as the specialist. That so slight an injury would result so seriously could hardly be anticipated. It is difficult to account for the lesion. The fall might have produced a basilar meningitis in the course of the optic tracts, which by compression caused a descending neuritis resulting in atrophy of optic nerves."

ESERINE AND PILOCARPINE IN EYE DISEASE.—Dr. H. W. Williams, in the *Boston Medical Journal*, March 14th, 1878, presents a well arranged summary of the value of the above remedies in eye diseases. Experiments by numerous investigators have shown that these drugs have the following action: The activity of the circulation is increased, the pressure within the anterior chamber is lessened, the action of accommodation is excited, and the radius of curvature is lessened. The indications for their use follow directly from their mode of action. Thus in all corneal ulcers, in suppuration after cataract operations, in glaucoma, its value is unquestioned. Its clinical effects are: 1. A drop of a two-grain solution of sulphate of eserine causes the pupil to contract strongly in about fifteen minutes, and this effect continues for some eight hours. The application causes little or no pain. In paralysis of accommodation and mydriasis resulting from diphtheria, measles or scarlatina, eserine abbreviates the abnormal condition. In paralysis of the ciliary branch of the third pair resulting from exposure to cold, it is equally useful. In hysterical photophobia, eserine forms an important part of treatment. The chlor. hydrate of pilocarpine differs in its effects in that it produces less conjunctival irritation, less supra-orbital pain, and less spasm of the accommodative power.

Diseases of Women.

SURGICAL TREATMENT OF INTRA-UTERINE SUB-MUCOUS FIBROIDS.—Dr. E. T. Easley (Richmond and Louisville *Medical Journal*, February) offers the following conclusions on the above named subject. They are believed to be conservative, and represent, perhaps, a compromise between the views of those, on the one hand, who never recognize a necessity for surgical interference, and those, on the other, who claim a wider range for operations than has been generally allowed:

1. Cutting operations, for the removal of sub-mucous intra-uterine fibroids, are not justifiable, unless it is evident that their presence endangers life.

2. That primary enucleation, when at all practicable, is slightly preferable to the secondary method.

3. That in secondary enucleation the surgeon need not be solicitous to remove the growth *en masse*, but when the process is once set up he may, with great certainty, rely upon its piece-meal disintegration.

4. In primary precedures, the treatment should be chiefly such as is best calculated to limit shock, and, afterward, to nourish the patient and guard against pelvic inflammations.

5. In the secondary method, most authorities say the ergot of rye should be given to the extent of maintaining vigorous uterine action. Decomposing discharges and shreds of slough should be carefully removed, the patient's strength be sustained, and all constitutional measures to prevent septic infection strictly enforced. Locally, detergent fluids are to be freely used, and the utmost cleanliness observed.

6. The mortality has exceeded one-half, and it is not likely that it will ever be reduced to one-third of all the subjects of operation.

J. D. M.

THE FARADIC TREATMENT OF UTERINE TUMORS.—J. T. Everett, A. M., M. D. (*American Journal of Obstetrics*, January, 1878), concludes, from his notes of cases, that:

1st. A judicious use of the faradic current is as certain and powerful to produce uterine contractions as ergot.

2d. It is more easily controlled.

3d. It does not disturb nutrition, or any of the secretions, nor does it interfere with digestion.

4th. It does not induce pain in distant organs, and is not followed by cephalic disturbance or nervous shock.

5th. It does not give rise to inflammations, or produce other local injuries.

OVARIAN DYSPEPSIA.—J. Milner Fothergill, M. D. (*American Journal of Obstetrics*), describes "a form of dyspepsia induced and kept up by irritation arising from the ovary." The irritation, of course, must be reflex. The condition of the ovary affects the stomach very much, as the impregnated uterus may be said to do. It was noticed that patients, who presented themselves at the City of London Hospital for diseases of the chest, with the usual symptoms of phthisis, had a good family history. The patient also, frequently, had a good physique. Closer investigation showed that the two marked features in these cases were dyspepsia, with leucorrhœa and menorrhagia. These conditions unite a defective nutrition with excessive waste, and produce a condition exceedingly favorable to the deposit of tubercle.

The condition of the ovary was found to be the prime cause of this mischief—a state of vascular excitement in one or both ovaries, usually the left. This condition, Barnes calls "cophoria." Patients suffer more or less pain in the iliac fossa, much aggravated during the menstrual periods, at which time there is a more or less severe genito-crural neuralgia. Pressure over the affected ovary induces acute pain during the excitement of the menstrual flow, and, at other times, in a less degree, while the patient "feels queer," as if about to faint. We have, in this condition, an important though small organ morbidly excited, and capable of giving off from its nerve centers waves of nerve perturbation, which will be felt in distant organs. These waves may break at different points. In one case the stomach may be affected, in another intercostal neuralgia may be the prominent symptom. Uterine disturbance is excited—there is frequently menorrhagia present, and always leucorrhœa. Sometimes there is diminished menstrual flow, but then there will be more profuse leucorrhœa. A distressing orgasm, recurring oftenest during sleep, makes the patient still more uncomfortable. This recurrent orgasm affects the bladder through the nerve centers of that organ, and adds incontinence of urine to the already too complicated affection in a certain proportion of the cases. Then, also, the ovary, or ovaries, as the case may be, keep the uterus in a constant state of erection, and high vascularity, so that it is not strange that such patients suffer from leucorrhœa and menorrhagia; or, if instead of menorrhagia, there is an increased leucorrhœa, then the starved, overtaxed organism may prove unequal to the periodic hemorrhage.

As for the stomach, which also contains sympathetic nerve fibers, isolated nerve ganglia, and some fibers of the pneumogastric, the case is different. As has been fully proved by M. Bernard, as well as by later experimenters, the effect of a stimulus applied to the sympathetic nerves of the stomach, is to cause a diminution, or even complete arrest of secretion. As is well known, the action of the sympathetic nerve filaments is to contract the arteries and arterioles, while the pneumo-gastric filaments dilate them. Hence, it is easy to understand the effect of a nerve current from the ovary, which, traversing the sympathetic nerve fibrils, arrests the flow of gastric juice, more or less thoroughly, and dyspepsia is the consequence.

The etiology of these cases is involved in doubt. Inquiries seem to elicit the facts that a miscarriage, in a few cases marriage; in others—who were middle-aged women, nearing the end of their reproductive life—a confinement, were the beginnings of the trouble. A few were made thus miserable by the excessive excitement due to the changes at puberty, and quite a number of the patients attributed their trouble to the excitement set up by the working of the treadle sewing machines.

The treatment for this class of evils is, first, to unload the bowels with a saline, such as sulphate of magnesia; bromide of potassium to control the conductivity in the nerves, and a blister over the region of the ovary. If the stomach is too intolerant of food and medicines, they may be given per enema. Also, astringent vaginal injections, hip baths, etc., are important.

The menorrhagia is treated during the flow by quietude, cooling drinks and unstimulating food. The irritable stomach should be supplied with small quantities of food at regular short intervals.

To treat the stomach as the offending organ does no good in these cases, therefore the author begins the treatment of dyspepsia by eliminating the ovarian factor in all females before treating the stomach.

Therapeutics.

TANNIN AS A DEODORIZER OF IODOFORM.—(*Louisville Medical News*, October 27th, 1877.)—Dr. J. R. Cole, Hot Springs, Ark., writes as follows to *New Remedies:* "Having accidentally discovered that tannin will deodorize iodoform, I take pleasure in making known the fact to you. I use it in equal parts as an application to chancroids and to old, offensive ulcers."

COFFEE AS AN ANTIDOTE TO STRYCHNIA.—(LANCET—*Med. and Surg. Rep.*, October 27th, 1877.)—Dr. A. Lelli having met with a case in which a large dose of strychnia was administered in coffee without fatal consequences, was led to institute some experiment to determine whether it possessed an antitoxic power against this drug. The animals used were rabbits. By comparative trials he found that a dose of five centigrammes proved fatal in a short time; when the same or a larger dose was given in a very strong infusion of coffee, he found that the coffee either acted as a complete antidote in preventing the poisonous effects of the strychnia, or that it materially diminished the violence of its action. The details of the experiments are given in the *Revista Sperimentale di Freniatria.*

ACUTE ARTICULAR RHEUMATISM TREATED BY TARTAR EMETIC OINTMENT.—Dr. M. J. Guerin, in the *Archiv. Gen. de Medicine*, November, 1877, says that he has been able to abort acute articular rheumatism by the inunction of an ointment of one part tartar emetic and two parts lard. This is repeated every six to eight hours. A rapid reduction of the pain and swelling occurs, a result which he attributes to a dynamic action of the remedy. In gout a similar good result was speedily reached.

IRON; ITS VALUE IN PULMONARY PHTHISIS AND SENILE ANÆMIA.—Dr. R. W. Crighton, in the *Practitioner*, January, 1878, gives us his experience on the above topic. These are of more interest because they do not accord with Fothergill's rules for the administration of iron. Crighton, from an experience of more than a quarter of a century, affirms that, next to cod liver oil, iron judiciously given is of the highest value. Yet, in many of these cases the "tongue was red and irritable." He usually gives the perchloride of iron with quinine once or twice per day after meals. If signs of intestinal irritation occur, a dose of bismuth at bed time, or occasionally small doses of morphine and glycerine are given with the iron. This method, plus the cod liver oil and the external application of iodine liniment, has furnished the very best results in advanced cases. In early phthisis with rapid pulse and high temperature, the use of iron with digitalis has in every way caused a rapid improvement. A tongue loaded with fur contraindicates the use of iron, but not a preternaturally clean or irritable one. In senile anæmia the use of iron is one of the main indications for treatment. Of course, the doses must be smaller than in middle life.

INTERNAL HEMORRHOIDS—THEIR TREATMENT BY GLYCERINE.—Dr. David Young, in the *Practitioner*, January, 1878, calls attention to the value of glycerine in the treatment of such cases of hemorrhoids as cannot be reached by other more radical measures. Five cases are given in which marked and permanent relief was afforded by the use of this remedy. From two to four drachms are given twice a day in water. If the patient objects to the sweet taste, lemon juice or citric acid may be added.

SULPHATE OF ATROPIA IN PATHOLOGICAL SWEATS.—M. Vulpian reported to the Paris Academy of Medicine, November 6th, 1877, that he had found sulphate of atropia a sure preventive of night sweats in phthisis. He administers the drug in pills of half a milligramme (three four-hundredths of a grain each). One or two of these pills usually suffice, but in certain cases the dose may be increased to four pills.—*British Med. Journal.*

TRICHINIASIS.—Leipzig has an epidemic of trichiniasis, due to pork sausage. It has attacked the families of several of the university professors. Last week there were forty-one cases of trichiniasis at Stettin.—*British Med. Journal.* (When will people learn to cook their meat?)

CHLORAL HYDRATE IN INSOMNIA.—Dr. Oscar Liebreich, in the *London Lancet*, October, 1877, states as the conclusion arrived at after long experience, that for a case of simple insomnia, the normal dose of chloral hydrate need not exceed 1.25 to two grammes (19.3 to 30.8 grains). This amount varies in different individuals, as for instance a man who can take large quantities of alcohol must have a larger dose, while an enfeebled individual can only take safely a smaller dose.

When the requisite dose is ascertained, the amount need not be increased. In this it differs from opium and its alkaloids. A patient never acquires the same tolerance of chloral hydrate as he does of opium.

Dr. Liebrich has not noticed the sudden supervention of dangerous symptoms after the continued use of a normal dose of chloral. The doctor also thinks that the mischief caused by impure preparations of chloral has brought the drug into unmerited disrepute.

Pure crystals alone should be used in compounding prescriptions. The tablets or cakes in general use in this country (America) are at least uncertain if not unsafe, because easily decomposed, and should be discarded.

PHYSIOLOGICAL AND THERAPEUTICAL PROPERTIES OF GLYCERINE.—*L' Union Medicale*, February 5th, 1878.—M. Catillon has lately read before the Therapeutical Society, of Paris, the conclusion of his paper upon the physiological and therapeutical properties of glycerine. In the first part of his communication, he proved, that glycerine determined a notable diminution in the daily quantity of urea excreted, elevation of the temperature and increase in weight of those to whom it is administered. It lessens disassimilation by furnishing an aliment for respiratory combustion. There results a diminished destruction of the fatty and nitrogenized matters of the organism, which are thus spared. In the present part of his communication, M. Catillon demonstrates this combustion of glycerine by new experiments, from which, he deduces the following conclusions: Glycerine determines an increase in the centesimal proportion of carbonic acid contained in the expired air. This increase commences to be apparent about one hour after the ingestion of the medicament, attains its maximum three or four hours after, and the proportion may rise from 4.3 p. 100 to 5, 6, and 7 p. 100, according to the doses. At the same time, the depth of the inspirations is seen to increase, and this effect persists even when the proportion of carbonic acid has become normal. The increase in the absolute quantity of carbonic acid exhaled is such that almost the entire quantity of carbon contained in the ingested glycerine can be refound under this form.

Differently from alcohol, which has been found condensed in the blood, brain and liver by MM. Duray, Lallement and Perrin, and whose integral elimination has been proven by the same gentlemen, glycerine is not condensed in any organ, and is elminated almost entirely under the form of water and carbonic acid.

EMPLASTRUM BELLADONNÆ FLUIDUM FOR ACUTE AFFECTIONS OF THE BOWELS.—The above named preparation is an alcoholic extract of double the strength of the emplastrum belladonnæ, but kept fluid with collodion. Camphor was combined with it for the purpose of aiding to arrest the natural mammary secretion. It is applied with a brush over the affected regions night and morning, until the acute symptoms give in. No rubbing is necessary. It is of equal value, whether the inflammatory irritation accompanying the outset of the lacteal secretion is due to exposure to cold, inflamed nipples, or obstruction in the milk ducts. It may also be relied upon for restraining the secretion of milk, or to prevent its forming at all. In the latter case it should be commenced with immediately after the birth of the child.—*Dr. H. Miller, Edinburgh Medical Journal, December, 1877.* J. D. M.

JABORANDI PROPOSED AS A REMEDY IN HYDROPHOBIA.—J. G. Sinclair Coghill, M. D., F. R. C. P., Edinburgh (*British Medical Journal,* January 5th, 1878):

Dr. Coghill, from observations on cases of hydrophobia, concludes that, whereas, the salivary glands are the chief emunctories of the poison in the brute at least, and, whereas, the action of the salivary glands is suspended in man when attacked by this disease, therefore, to restore the functions to those glands, should be the first and especial aim of the medical attendant.

Reasoning thus, the doctor concludes that jaborandi, as being the most efficient sialogogue and diaphoretic known, will most completely fulfill this indication. The drug should be given in full doses, with a view to producing its effects as speedily as possible. An infusion of a drachm of jaborandi to the ounce of water may be given per rectum, or a concentrated watéry extract may be given hypodermically.

Pathology.

LESIONS OF THE CORTEX OF THE CEREBRUM AS RELATED TO THE MOTOR TRACTS.—By a numerous series of physiological experiments, a large number of physiologists have been led to the conviction that the cortex cerebri contains motor centers. Of the typical experiments there is no difference of views, viz., all experimenters admit that if certain portions of the cortex cerebri be irritated by a galvanic current, these definite movements of definite groups of muscles always occur. But, in the explanation of these facts, great diversity prevails. Thus, Dupuy and others hold that the electrical current does not bring into activity the cortical nerve cells, but is transmitted along the nerve fibers to the base of the brain, and these stimulate the cells of the corpora striata, optic thalami, etc., and so produce the definite movements observed. In short, the cortex is not irritated, only the basic ganglia. On the other hand, Hertzig, Ferrier and others, believe that the electrical currents bring into activity the cortical nerve cells at the points of the electrodes, and that these, by their proper connections, excite the muscular movements. Of the experiments and arguments by which each seeks to maintain his position, it is not our purpose here to make any statements. We desire simply to present a brief account of some recent pathological observations, by M. Charcot, bearing upon the practical aspects of the questions at issue. We are indebted to the London *Medical Record* for our facts.

It will be admitted by all, that if there are motor regions in the cortex, then lesions of these regions ought to produce motor symptoms. Further, lesions of non-motor regions should not cause motor symptoms.

The truth or falsity of these propositions cannot be determined by old recorded cases, because of the inexact manner in which the extent and situation of the lesions are recorded. Recent and carefully recorded cases are alone to be relied upon.

Both recent and old observations demonstrate that extensive lesions of the cortex may occur without motor symptoms.

The usual explanation of these cases is that, owing to the slowness of the development of the lesions, time was allowed for functional compensation by other parts of the hemispheres. This explanation is not tenable, because of the numerous cases of wounds of the brain, which have not caused either paralytic or convulsive phenomena. Among these cases is the celebrated Gage case of Vermont, reported by Dr. H. I. Bigelow, of Boston. Charcot adds two other similar cases, under his own observation, and refers to another in which the upper part of the first right convolution was lacerated. The patient died of pyæmia, without exhibiting any motor symptoms. In another case the temporo-sphenoidal lobe was extensively lacerated, also without motor symptoms. In all of these cases all the phenomena depend upon the location of the lesion, and not on the slowness of its growth. Cases are now detailed illustrative of the regions which may be affected, without giving rise to the motor disorders. These regions are the temporo-sphenoidal lobe, the occipital lobe, the inferior parietal lobe, the island of Reil, the cuneus, the quadrilateral lobule, the orbital lobule, and the anterior extremity of the first, second and third frontal convolutions. Charcot finds that the motor region includes the ascending frontal and parietal convolutions, the paracentral lobule, and, probably, also the parts immediately adjoining, as the base of the frontal superior and inferior parietal convolutions.

It must be remembered that experimental physiology has shown that these regions contain centers for differentiated movements of the opposite side of the body, face, limb, mouth, etc.

Destruction of these regions produces results varying with the position of the animal in the scale. Paralysis is transient in the dog, but permanent in the monkey. Charcot's observations upon man, accord with the results of experiments on monkeys. Some lesions irritate, and so cause convulsive phenomena, others destroy and cause paralysis, and others cause an alternation of these phenomena. A case is given of complete left hemiplegia without loss of sensation, in which was found softening of the region, supplied by the sylvian artery, especially the lower two-thirds of the frontal and parietal ascending convolutions, extending insensibly into the base of the second frontal gyrus, and into the inferior parietal lobule. The ganglia and rest of the brain were normal. In connection with this case it must be remembered that the researches of Duret have shown that the motor regions of the brain receive their blood supply from the superficial branches of the sylvian artery, and in such a manner that the cortex may be deprived of its blood, while the circulation is unaffected in the central parts. From plugging of the sylvian artery, after it has given off its branches to the corpus striatum, the cortical motor zone may be softened, and give rise to a hemiplegia, the same as results from destructive lesion of the corpus striatum.

Charcot records a case of left hemiplegia, with conjugate deviation of the eyes, in which the lesion, though complicating the ascending parietal convolution and postero-parietal lobule, and the upper parts of the temporo-sphenoidal convolutions, no loss of sensation was observed. Thus it is shown that it is not necessary that the entire territory supplied by the sylvian artery should be involved in the lesion, in order to cause hemiplegia of the opposite side. Four cases are now cited, in which was found softening, either of portions, or of the whole of the following parts of the brain: The ascending frontal and parietal convolutions, and also the island of Reil, were affected in every one, the second and third frontal convolutions in two, third frontal convolution in one, inferior parietal lobule in one, and both superior and inferior parietal lobules in two of these cases. In two of the cases the ganglia were normal; in others, the left crura, as well as the pons and pyramid on the same side, were affected by secondary degeneration. In all the cases there was hemiplegia of opposite side. Phenomena presented by limited lesions of the motor zone:

Partial lesions of the motor zone are attended with a partial hemiplegia, viz., a paralysis of the face, or leg, or arm, or leg and arm, without the face. Partial lesions of the motor zone are accompanied by transitory primitive contracture, while in general lesions of the same zone there is no contracture.

It is easy to separate these lesions from those of the central ganglia, because the latter are complete, and affect the *face, arm and leg together*. Charcot affirms that when paralysis, limited to one limb, or the face, results from cerebral disease, the lesion is in the central motor zone, or in the white matter adjacent to it.

The first case related was one of left facial monoplegia, accompanied, temporarily, with a certain degree of rigidity in the limbs, on the same side. On *post-mortem* examination it was found that the cerebellum, medulla oblongata, the pons and crura were intact. The right hemisphere weighed less than the left, and its surface was found softened and adherent to the membranes in the region of the third frontal convolution, the lower third of the ascending frontal, the lower fourth of the ascending parietal, the whole of the inferior parietal lobule, including the angular gyrus, the posterior half of the superior parietal lobule, the whole of the superior temporo-sphenoidal convolution and the island of Reil. The lesion here described is extensive, but it will be noted that it invaded the motor zone only at the *lower extremity* of the *ascending convolutions*.

In the next case there was observed a primitive contracture, followed by paralysis and flaccidity of the limbs on the opposite side without any affection of the face.

In another case there was only paralysis of the face and arm on the left side. The lesion here was an area of softening, occupying the lower extremities of the ascending frontal and ascending parietal convolutions.

M. Maurice Raynaud reports a case of a phthisical patient, who, three days before death, was attacked by paralysis, limited to the left arm. The *post-mortem* lesion was a small focus of red softening, found in the right hemisphere, situated in the ascending parietal convolution, and the gray matter at the base of the fissure of Rolando, three centimeters from the longitudinal fissure.

When cortical lesions are not rapidly fatal they are followed by permanent paralysis, with secondary contracture, just as in lesions of the motor tract of the internal capsule.

Among the cases supporting this statement we find the following:

Case of permanent right hemiplegia, with no aphasia, very deaf, with slight paralysis of the right side of the face, and paralysis, with rigid contracture of the right arm and leg, without affection of sensation.

Post-mortem examination revealed an area of softening in the left hemisphere, well defined and limited to the lower two-thirds of the ascending parietal convolution. Other parts and ganglia were normal. Left side of the pons and left anterior pyramid were atrophied, and patches of sclerosis detected by the microscope in the latter.

M. Bourneville fully reports the case of a girl, aged 18, who had left hemiplegia from the age of six, and suffered from frequent convulsions and tremors in the paralyzed leg. There was no paralysis of the face or tongue. She died after a series of 297 fits. After death an area of cortical softening was found in the left hemisphere, anterior to the fissure of Rolando, and affecting the upper half of the ascending frontal convolution at the point of origin of the first and second frontal convolutions, and the whole of the internal surface. The right lateral column of the spinal cord was distinctly atrophied, and, throughout the whole cord, this column was affected with sclerosis. In the cervical region a band of sclerosis was found in the antero-internal part of the left column.

The existence of secondary scleroses in the spinal cord as the result of cortical lesions, is an important fact. They do not occur when the lesions are situated in the non-motor zone, however old or extensive the lesions may be. Hence, there is a more or less direct relation between the cortical motor zone and certain lateral fibers of the spinal cord, which do not exist, with reference to other regions of the cortex.

Epileptiform convulsions, as connected with lesions of the cortex: These convulsions consist, occasionally, in a limited number of localized muscular spasms, but at other times they have all the character of idiopathic epilepsy. They generally commence in an isolated group of muscles, and propagate themselves to other muscles of the same limb, or to the whole body, before the patient loses consciousness. The loss of consciousness is not a constant phenomenon in epilepsy of cortical origin, and the individual can often give a complete account of the course of the attack. These convulsions were observed by the older physicians, but the first exact investigations into their relation to cortical lesions were made by Hughlings Jackson.

Hertzig and others have experimentally proved the truth of these investigations. He showed that electrical irritation of the cerebral hemispheres frequently caused localized unilateral or general convulsions. Further, convulsive attacks may result from long standing lesions of the cortex. Cortical epilepsy, commencing in one of the upper extremities, begins in the thumb and index finger, and then extends upwards. The convulsive action may be limited to the arm, or it may spread to the face and leg, or it may become general. Consciousness is not lost till a considerable muscular area is invaded. The convulsions last from one to five minutes, and are followed by a weak condition of the limb. The attack is often preceded by an aura, referred to the parts about to be invaded. The frequency of the attacks varies. Cases illustrating cortical epilepsy, in the upper extremity, are as follows:

First. Case of convulsions, limited to the right arm; a tumor was found in the posterior part of the first frontal convolution in the left hemisphere.

Second. Case of epilepsy, commencing in left thumb; a small tumor was found at the lower extremity of the ascending frontal convolution on the right hemisphere.

Third. Case in which convulsions began in left thumb; a small tubercle of the size of a nut was found at the posterior part of the third frontal convolution of the right hemisphere.

Fourth. Case in which the attack began in the right shoulder, and descended the arm; a rounded tumor, about an inch in diameter, was found at the posterior extremity of the first frontal convolution in left hemisphere.

Fifth. Case in which the attacks were frequently limited to the ight arm, but, at other times, spread to the right side, and were attended with loss of consciousness. Right hemiplegia gradually developed itself. Several tumors were found in the left hemisphere. The largest of these measured two inches by one and one-half inches, and was situated in the upper part of the parietal lobe, close to the intra-hemispherical sulcus, and pressing on the upper part of the ascending parietal convolution.

Sixth. Case of left hemiplegia, followed, in three days after the first attack, by a convulsion on same side, beginning in the left arm. *Post-mortem* examination revealed an apoplectic extravasation in the posterior part of the first frontal convolution.

Seventh. Case of left hemiplegia, with aphasia. Aphasia rapidly disappeared, but paralysis continued. After three months the patient began to suffer from epileptic attacks, which always began in the left arm. After death a patch of yellow softening was found at the base of the first and second frontal convolutions, and extending, in the centrum ovale, almost to the ventricle.

Cortical epilepsy, beginning in the leg, is rarer than that beginning in the arm, but in all other respects it is analogous.

Cortical epilepsy, beginning with the face, may start in the eye, eyelids, cheek, or lips, and with an aura.

First. Case of bullet wound in right side of head. Three months after the injury he began to have clonic spasms of the right side of the face and tongue, followed by some degree of paralysis.

The convulsions were occasionally repeated and extended more or less unilaterally. After death, an abscess, eight inches in diameter, was found in advance of the fissure of Rolando, between this and the pre-central fissure at the lower part of the ascending frontal convolution.

Second case.—Patient, after a depressed fracture of the left temporal region, showed on the following day paresis of the muscles of the right side of the jaw and of the right eyelids. In the night aphasia came on. On the second day there was distinct facial paralysis on the right side, and a certain degree of rigidity of the muscles of the neck, with spasms of the right facial muscles.

Death took place four days afterwards, when it was found that the membranes had been lacerated, and much bruising had occurred on the convolutions bounding the fissure of Sylvius. On the frontal convolutions there was an extravasation of blood mingled with pus, which extended up to the parietal and temporal convolutions.

Charcot's conclusions from his elaborate studies are:

1. The cortex of the human brain is not functionally homogeneous; only one part of the convolutions is devoted to the regular exercise of the voluntary movements. This part which we may designate as the cortical motor zone, comprehends the paracentral lobule, the ascending frontal convolution, the ascending parietal convolution, and perhaps the foot of the frontal convolutions.

2. All cortical lesions of whatever extent, lying outside of this motor cortical zone, are latent as regards troubles of motility; that is, they cause neither paralysis nor convulsions. Nor are they accompanied by secondary degenerations of the spinal cord.

3. Destructive lesions, even when very limited, attacking either directly or indirectly the motor zone, necessarily provoke trouble of voluntary motility.

4. If the lesion destroys at once a large part of the cortical motor zone, it gives rise to a sudden hemiplegia, accompanied later by a secondary degeneration of the spinal cord, and later, developing contractures of the paralyzed muscles, resembling altogether the common form of central hemiplegia.

5. If the lesion be limited to a restricted tract of the cortical motor zone, it gives rise to suppression of function and to convulsions, generally of the form studied under the head of partial epilepsy. After a certain period these very limited destructive lesions of the motor zone cause a secondary degeneration, which descends through the cerebral peduncle and the medulla oblongata into the lateral columns of the opposite side of the cord.

6. The study of the paralysis and convulsions of cortical origin demonstrates that the cortical motor centers for the two members of the opposite side are situated in the paracentral lobule, and in the two upper thirds of the ascending convolutions, and that the centers for

the movements of the lower part of the face are located in the lower third of these convolutions, near the fissure of Sylvius.

7. It is probable that the center for the isolated movements of the upper member are situated in the upper third of the ascending frontal convolution of opposite side.

8. We do not know yet exactly the situation of the cortical motor centers for the movements of the nape of the neck, the eyes, or the eyelids.

Nerve Stretching for the Relief of Neuralgia.—In the *British Medical Journal* for December two cases of nerve stretching are reported:

The first was under Mr. Heath's care. The patient, a stout woman, had long suffered intense neuralgic pains in the right buttock, and down the back of right thigh. Nothing relieved the sciatica, though all the usual remedies were diligently tried. Mr. Heath cut down upon the sciatic nerve, and exposed it where it emerges from beneath the gluteus maximus. Seizing it with two forceps, he forcibly stretched it, and loosened it from its bed. No inconvenience followed the operation, and the woman has since been perfectly free from pain; in fact, it promises to be a complete success. The second case was that of a man under Mr. Bradley's care, suffering from hyperkinesis of the spinal system generally. The condition of the poor fellow was so distressing that Dr. Ross, who had had previous charge of the case, suggested that nerve stretching should be systematically tried, first in the legs, and then in the arms. As the operation was quite of a tentative character, the only nerve stretched at the first operation was the anterior crural, just beyond Poupart's ligament. It is too recent to speak confidently about the result, but so far as it has gone, it is encouraging. There is no loss of power or sensation in the muscles supplied by the anterior crural, while there is a marked diminution in the choreic movements of these parts.

Reflex Paralysis from Phymosis and Adherent Prepuce.—W. H. Whitehead reports, in the *Cincinnati Medical News* for November, 1877, the following case: John A., aged seven years, perfectly healthy up to the age of four, when he began to have convulsions, and continued to have them, without impairment of health, up to the age of six. Then he began to be clumsy, and finally became generally paralyzed. When seen by the doctor first he could not move hand or foot, nor articulate a word; his expression was somewhat idiotic, bowels constipated, and had been as long as ten days without an action, even after taking several doses of castor oil. When examining the abdomen the penis was accidentally touched, when the organ became erect, and the boy instantaneously had a convulsion. Boy's mother informed doctor that with every fit the penis became erect, and that he had as many as sixteen in twenty-four hours. On examination he was found to have phymosis with adherent prepuce. He was circumcised, and the adherent membrane torn from the glans. Behind the corona was impacted sebaceous material. No medicines were given. On next visit, two days after, boy was sitting in chair, with more intelligent countenance; bowels had moved regularly, and had had only one convulsion. Five days after he could walk across the room, and had had no convulsion. In two weeks he had very much improved.

TREATMENT OF BLENNORRHAGIC ORCHITIS WITH IODOFORM.—(*Paris Medical—Canada Medical and Surgical Journal.*)—Iodoform, combined with flexile collodion, as in the following formula, relieves pain in a remarkable manner. Flexile collodion, thirty grammes; iodoform, two to four grammes.

Dr. J. Alverez, of Palma, has published in the *Independencia Medica*, of Barcelona, four cases. From them he derives the following conclusions:

1. More effectually than all other remedies, iodoform eases the pain which accompanies blennorrhagic orchitis. This result is obtained at the end of one or two hours.

2. Iodoform acts as a powerful resolvent. It presents an advantage over the mercurial ointment generally used, inasmuch as it causes no inconvenience by its absorption.

3. Iodoform shortens the duration of orchitis, and prevents the subsequent induration of the organ.

4. An ointment of the strength of one or two grammes of iodoform, to thirty grammes of lard, should be used.

DILATATION OF THE URETHRA BY URINE.—Supposing that constriction of urethra be near the neck of the canal, as often happens, the pressure ought to be sufficiently strong to prevent the urine escaping, except with difficulty, and, after having sojourned some time in the canal, which, by this means, will be found more or less dilated throughout its whole length, and consequently at the strictured spot. The patient, taking care to repeat this operation every time he is obliged to micturate, he will obtain little by little by this means the same effect as would be expected from the use of bougies without experiencing any of the inconveniences of these latter. This procedure may be used with benefit:

1st. As a prophylactic means against urethral stricture, after an attack of blennorrhagia of a certain duration.

2d. In cases of stricture not far advanced. In these cases it may be expected to re-establish the urethral caliber, if not to its normal proportions, at least sufficient for a reasonably easy micturation.

3d. After operations of urethrotomy, it is perhaps a useful means of preventing, or at least notably retarding the return of the coarctation, which is too often reproduced *with disheartening obstinacy*.

4th. In cases of prostatic varices of the neck of the bladder, and of the membranous portion of the urethra.

5th. In partial or total hypertrophy of the prostrate, cases which are met often in old men, where more or less of the neck of the bladder, and a corresponding portion of the canal, becomes deformed. It happens in individuals who are thus affected, that the first drops of urine, which they emit with so much difficulty and delay, act efficiently in filling the canal when the meatus is compressed. This canal, once re-established in its ordinary caliber, then easily gives passage to the remainder of the contents of the bladder.—*Lyon Medical.*

A NEW METHOD OF TREATING FRACTURE OF CLAVICLE.—Henry VanBuren, M. D., in the *Chicago Medical Journal*, reports success with the following method of treating fractured clavicles. Make a bandage three or four inches wide, of double thickness, and sufficient length. On one end a loop is made by returning bandage upon itself, and securing by stitches. Hand of injured side is passed through loop, and the loop carried up to a point just below the axillary margin. This bandage is then passed directly across the back, and under the sound arm, and over the sound shoulder, and returned across the back and stitched to itself at the point where loop is formed. The arm of injured side is then flexed with the hand on the chest, pointing in the direction of the sound shoulder. Another bandage of double thickness, and same width, is pinned or stitched by one end to the lower margin of the the first, in front of the sound shoulder.

It is then passed diagonally downward, and across the chest, under the hand and fore-arm, which has been flexed upon the chest, and carried around the arm at the elbow, and back on the dorsal surface of the fore-arm and hand to the point from which it started, and this end also pinned to the first bandage. The lower margins of this bandage are stitched together for a distance of three inches at the elbow, thus forming a trough for it to rest in. The same may be done at the upper end in which the hand may rest.

This sling serves the triple purpose of drawing the lower end of the arm forward and upward, and thus throwing the injured shoulder backward. It supports the fore-arm and hand in a comfortable and quiet position, and last, it prevents the first bandage from cording under the sound arm by its attachment to its lower margin.

Surgery.

APHORISMS IN FRACTURES.—Professor R. C. Cowling, in a paper read before the Central Kentucky Medical Society, in July, 1877, gives the following as aphorisms concerning fractures which every surgeon will admit are of great practical value:

1. In establishing the diagnosis of fracture, crepitus is the most satisfactory sign; nevertheless it is not always necessary or desirable to obtain it.

2. There is frequently a physiognomy about fracture which declares the nature of the lesion; notably in Colles's fracture of the radius, ordinary fractures of clavicle and neck of femur.

3. The sensation of crepitus in recent fracture is *sui generis* and unmistakable. When once detected, further attempts to elicit should not be made, except for the benefit of an accompanying physician who may be in doubt as to the nature of the injury.

4. Crepitus cannot be had in impacted fracture except to the injury of the patient. It is difficult to obtain it in intra-capsular fracture of the femoral neck under all circumstances.

5. "Loss of function" as a symptom is all important in establishing diagnosis in certain fractures.

6. When any doubt exists as to diagnosis in the examination it should be conducted under an anæsthetic.

7. The chief difficulty in the differentiation of fracture is from sprain.

8. The prognosis in simple fracture is always favorable when injury is confined to shaft of bone, even if there be comminution.

9. In multiple fracture, when simple, the healing process is not retarded.

10. In fracture involving a joint, more or less stiffness is to be feared.

11. With the improved methods of treatment, the danger to life and limb in compound fracture has been reduced to such an extent, that former laws for determining the question of amputation are to be recast.

12. The best time to dress any fracture is immediately after its occurrence.

13. Temporary dressings are to be used only when permanent dressings are not to be had, or to move patient.

14. Under proper treatment immediately instituted, swelling will probably be prevented

15. The indications for treatment are, first, reduction of fragments; second, their immobilization.

16. The dressing of the fractures is best done under an anæsthetic, to secure comfort to patient and prevent muscular spasm.

17. Perfect immobilization is only obtained when joints contig-

uous to the fracture are secured; and there is no law more important than this in fractures of the lower extremity.

18. One of the commonest reasons for failure and disaster in the treatment of fracture arises from the fact that bone and muscle only are considered, blood-vessels and nerves are left out of sight.

19. Carved and manufactured splints generally fit nobody, and are to be rejected as not only expensive, but damaging. Deal-board, paste-board, and materials for the plastic apparatus are all that is needed.

20. The application of a bandage immediately to the skin has resulted in such disaster that it is one of the curiosities of surgery how it could be repeated at this day.

21. Evenness of pressure is only to be obtained by the proper lining of the splints with cotton, or in compound fracture, with oakum.

22. The cotton to be used is preferably that known as "batting." Only the best should be used. The layers should be unbroken. It should be used freely, especially over bony prominences.

23. Continued extension and counter-extension are, as a rule, not necessary to prevent shortening. This is best done by removing the causes which lead to muscular spasm; first, by early interference; second, by as complete reposition of the fragments as possible; third, by smooth application of batting to the limb; fourth, by the equal pressure of the bandage, going from the distal end of limb to a point beyond the joint above the fracture; fifth, by accurate filling of splints or plaster; sixth, by as little interference afterward as possible.

24. Angular deformity is best overcome by the same measures as are used in longitudinal deformity. Compresses are to be avoided.

25. Bandages are made of cotton or cheap flannel, with selvage edge torn off, and thoroughly shrunk.

26. Comfort is the sign that a fracture has been properly dressed.

27. Frequent dressing for purposes of examination is useless and hurtful.

28. Whenever possible, after dressing a fracture, it should be seen again in a few hours, and daily in its earlier stages.

29. If in a consultation, a difference of opinion in regard to treatment arise, one should yield. Compromises often result badly, while fractures may do well under almost any reputable method properly pursued.—*Louisville Med. Times.*

EXCISION OF THE VEINS OF THE SPERMATIC CORD FOR VARICOCELE.—J. S. Thebaud reports in the *Hospital Gazette and Archives of Clinical Surgery*, November, 1877, an interesting operation for cure of varicocele. The veins of cord had been enlarged and gradually increasing for thirteen years. The mental and moral condition of the patient was also in an unfavorable condition. He was of a melancholy disposition and exceedingly unhappy. His memory was failing, and he was losing all interest in business. He was suffering with nocturnal emissions occurring three or four nights in succession, and often twice or three times the same night.

The scrotum extended to the middle of the thigh. The right testicle was crowded up against the external abdominal ring, while the left was soft and flabby, and almost imperceptible among the numerous convolutions of veins by which it was surrounded.

An incision was made through skin and cellular tissue extending from just below the external abdominal ring to near the lower extremity of scrotum. By dissection, veins were separated from the vas deferens and spermatic artery, and a strong, double ligature was passed about the entire bunch and tightened as high in the upper portion of the wound as possible. The veins were cut through below the ligature and the mass dissected down beside the artery and vas deferens to the testicle, around which they were carefully cut off and a ligature applied to each bleeding orifice. Parts were dressed in the usual way with cold water application. Three years after operation, emissions had long since disappeared as well as pains and low spirits. Was an active man and in good health.

THE INDICATIONS FOR DRAINAGE OF THE KNEE-JOINT.—Dr. J. Scriber, assistant in the Surgical Clinic at Freidburg, recommends drainage of the knee-joint instead of excision, in the following cases: 1. In acute serous inflammation, in the rare event of there being abnormal pain of sufficient severity to affect the patient's general health. 2. In acute prevalent inflammation of the joint, as soon as there is distinct fluctuation; in the rare case of osteo-myelitis involving one or both epiphyses; in the prevalent inflammation which may complicate pyæmia, pneumonia, acute infectious diseases and phlegmonous erysipelas of the lower extremities. 3. In chronic serous inflammation of the joint. 4. In fungous granulation (*a*) where the fluid secretion in the joint exceeds the fungous granulation in amount, and where the cartilage is still intact; (*b*) where there is excess of fungus granulation, but where caries is still absent. The presence of caries is a contra-indication for drainage and an indication for excision. The earlier chronic fungous inflammation of a joint comes under treatment, the better hope there is of giving the patient a useful, movable knee-joint, by means of drainage.—*Hospital Gazette and Archives of Surgery.*

BI-CARBONATE OF SODA IN THE TREATMENT OF BURNS.—Dr. Ely McClellan, in the *Louisville Medical Times* reports the case of a child suffering from a severe scald, involving the hand and forearm of right side. When brought to the doctor, the child was in a terror of agony, and almost unmanageable. The injured arm was carefully wrapped in soft cotton cloth which was soaked with a saturated solution of the bi-carbonate of soda, and in a few moments the pain was entirely relieved, and the child was sleeping. The use of the solution of soda was continued, no other treatment being necessary, and the convalescence was rapid.

ANTISEPTIC TREATMENT IN HERNIOTOMY.—J. F. West, in the *London Lancet,* November, 1877, reports five cases of herniotomy treated by Lister's antiseptic method at the Queen's Hospital, Birmingham. They were all done under the warm carbolic spray, one in forty, the steam spray being the instrument employed. Drainage tubes were introduced in every case, being essential, in the doctor's opinion, to a good result. The tubes were reduced in length from day to day, and generally removed entirely on the third or fourth day. A strip of protective was placed over the entire length of the wound, and then two or three small pads of carbolic gauze which were saturated with carbolic water, and over that eight layers of gauze with a sheet of protective between the seventh and eighth folds. The whole of the upper part of the thigh on which the hernia was situated, and the abdomen, were surrounded by gauze bandages three or four inches in width. The wounds were dressed within twenty-four hours, if there was the least sign of discoloration at the edge of the dressing, but if none, the dressing was done once daily for the first few days, and then every other day. By the seventh day, all discoloration ceased and the wounds healed. Dry lint was then applied, and a good fitting truss was obtained. The patients were enabled to leave the hospital within a fortnight.

The absence of suppuration, the freedom from elevation of pulse or temperature, and the good condition and healthy appearance of the wound have in all cases been remarkable.

TREATMENT OF PORTIONS OF FINGERS WHICH HAVE BEEN CUT OFF.—Dr. Karl Franz reports a case in which a man had the end of his finger bitten off by a horse. The bite was through the joint between the second and third phalanges of the index finger, and the end was held on by a narrow strip of epidermis. The subcutaneous connective tissue was cut even and the wound bled freely. It was first washed with cold water, and then with a solution of carbolic acid. The last phalanx was put in position, and the edges brushed over with a solution of carbolic acid in collodion. On fourth day the joint was well healed and the circulation re-established; there was no sensibility however. On twenty-first day patient could move the finger, and there was no pain even on strong pressure.

In wounds and cuts, and also in cases of burns and of erysipelas where the surface involved is not very great, the writer recommends the solution of carbolic acid above mentioned. The surface to which application is to be made should be cleansed as thoroughly as possible, and then the solution brushed over it; when the ether has evaporated, a layer of wadding should be applied. Franz reports also a case of badly crushed finger, also one of an extensive burn in which the treatment was followed by rapid improvement.—*Virginia Medical Monthly.*

SOME MOOTED QUESTIONS IN RELATION TO ARTICULAR DISEASES.—(Louis Bauer, *St. Louis Clinical Record.*) In summing up his discussion, Dr. Bauer arrives at the following conclusions:

1. A small proportion of joint diseases is unquestionably of constitutional origin.

2. By far the larger proportion of these diseases have a traumatic origin, possibly remote.

3. Scrofulosis has a compound nature, but no distinct anatomical characteristics.

4. Joint diseases occur more frequently in the lower than in the upper extremities.

5. Joint diseases are found more frequently in cities than in the open country.

6. Joint diseases rarely occur before the eighteenth month of infancy; they numerically increase up to the fifth year, when they decrease and become rare after the eighth year.

7. Among adults joint diseases are comparatively rare.

8. Joint diseases happen much more frequently among active and vivacious children than among those affected by the so-called torpid form of scrofula.

9. Joint diseases are amenable to local treatment.

10. Tonic constitutional treatment exercises no positive influence upon the status of joint diseases.

11. The most prominent and aggravating symptoms are reflex pain and spasms, producing permanent muscular spasm, in which the constitution has no part.

CHRONIC BURSITIS—TREATMENT OF.—Dr. Roxburgh reports two cases (*Edinburgh Medical Journal*), illustrating the great advantage of catgut as the means of drainage in certain antiseptic wounds. The skin over the inflamed bursa was first thoroughly purified with strong carbolic lotion, then a small incision made into it with a tenotomy knife, under the spray, the fluid pressed out, and a few threads of fine carbolized catgut passed into the wound with sinus forceps. The usual gauze dressing was applied, and allowed to remain ten days; on its removal the bursal swelling was found to have disappeared, the wound was completely healed, and the catgut cut off by the cicatrix. It may be claimed for this method of treatment that it is more certain and more rapid than counter-irritation, and much less painful than free incision or injection of iodine; while, in simplicity, a feature rarely attributed to antiseptic surgery, it could hardly be surpassed. J. D. M.

SOLUBLE GLASS IN SURGERY.—Prof. J. B. Marvin, of Louisville, Ky., in a communication to the *Boston Journal of Chemistry*, says that he uses soluble glass as a substitute for plaster of Paris, starch and other substances used in preparing immovable dressings. It can be applied on ordinary rollers, but he prefers stout manilla paper, cut in strips one and a half inches wide. He says that manilla paper and soluble glass properly applied prove the most efficient brace for the treatment of Pott's disease of the spine. For this brace the patient is prepared in the usual manner with a stout undershirt, tight-fitting. The strips of manilla are long enough to reach around the body and lap over two or three inches. The wrinkles in the shirt are smoothed out, and the shirt is pinned below the thighs. The patient is suspended in the usual manner. An assistant draws the strips of paper through a portion of the soluble glass that has been poured into a large shallow plate, and removes the excess by drawing the strips between his fingers. These are handed to the operator, who applies them quickly and evenly around the body of the patient, beginning at the axilla, and carries them well down to the crest of the ilia. Each strip is made to overlap the other half an inch. For the second layer the strips of manilla are wider and longer, and applied spirally around the body. Then follows a third layer like the first, and a fourth like the second. Four or, at most, five layers applied in the manner described, are enough, but a double number of strips go around the top and bottom of the brace. Each layer dries in a few seconds. The drying may be hastened by the use of a fan. As soon as the brace is dry the patient is put to bed, where he remains until morning.

If the patient suffers from enuresis, put a piece of oiled muslin or rubber cloth around the hips, to come below brace. The protection may be turned up over the bottom of brace, if desirable, or left to hang down. Such a brace, well put on, lasts from three to six months.

This brace possesses all the advantages of plaster, and besides is lighter, more quickly applied, and does not crack or shift the brace.

Physiology.

UNORGANIZED FERMENTS.—This is a term (Dr. Gamjee, in the *British Medical Journal*), applied to such ferments as those which occur in the animal body to distinguish them from certain elementary organisms, which, possessing the power of setting up certain decompositions in bodies with which they are in contact, are termed *organized ferments.* Unorganized ferments are chiefly distinguished from organized: 1. By the fact that they may be dissolved in certain menstrua without any impairment of their ferment action; thus ferments of the animal body are soluble in glycerine and in water. 2. By the fact that their action is not prevented by many agents, such as chloroform and salicylic acid, which at once arrest the action of organized ferments. Examples of unorganized ferments:

(1) Ptyalin in saliva.

(2) Pepsin in gastric juice.

(3) Pancreatic juice—three ferments.

(*a*) Proteolytic, capable of converting albumen into albumenose.

(*b*) Amyolytic, capable of converting starch into sugar.

(*c*) One capable of decomposing fats into fatty acids and glycerine.

Although pepsin transforms albumen into albumenose, the action of pancreatin is more profound. Thus Kühne has shown that when albumen is dissolved by pancreatic juice, not only is albumenose formed, but also leucine and tyrosine. The former of these bodies is closely related to the fatty acids, and the latter to the group of aromatic bodies.

To these facts, already old in science, there have been made some important additions. First, Heidenhain has shown us that in the pancreas, as also in the salivary glands and stomach, there are structural differences to be observed which correspond to the various states of functional activity of these organs. During rest the secretory cells of the pancreas enlarge, and there accumulates within them granular matter, which disappears when the gland enters into activity and the gland cell shrinks. Further, the secretory cell of the prancreas at the time of secretion does not contain ready formed ferment, but a body which under suitable circumstances yields the ferment, and which he terms ferment generator or *zymogen*. Heidenhain has shown that the *zymogen* yields the ferment when it is present in a watery solution, more rapidly still when it is treated with weak acids. His careful studies of the conditions of the activity of the fully formed ferment, show that alkalies are as essential to its activity as are acids to the activity of pepsin, a watery solution of sodium carbonate of one per cent being as favorable to the activity of the proteolytic ferment of the pancreatic juice, as is a watery solution of hydrochloric acid containing two-tenths per cent to that of the proteolytic ferment of the gastric juice.

Kühne has made important additions to these discoveries. To the proteolytic ferment of the pancreatic juice Kühne applies the name of *trypsin* (to break up). Trypsin differs from pepsin in that it appears to be proteid in nature. Its activity is increased by alkalies and alkaline fluids such as bile, but is prevented by acid fluids. Trypsin has no power of digesting pepsin, but pepsin in acid solution has the power of destroying trypsin. Remembering this, we see an important function of bile. It helps to neutralize the acid chyme and brings peptic digestion proper to a close, and in this way induces the condition most favorable to pancreatic digestion.

The researches of Thiry and others have shown that the secretion of the intestinal canal contains: 1. A ferment capable of dissolving certain of the proteids as boiled fibrine. 2. One which possesses in a singularly high degree the power of converting cane and milk sugar into grape sugar. Claud Bernard has lately reinvestigated this ferment and finds that it can be dissolved and precipitated by the reagents which dissolve and precipitate the other unorganized ferments of the body. To it he gives the name of *inverting ferment.*

COLORLESS BLOOD CORPUSCLES—THEIR AGENCY IN THE COAGULATION OF THE BLOOD.—Professor Schmidt has shown us that there is no fibrine in the circulating blood, and that the fibrine of the clot is represented by the fibrinoplastin and fibrinogen of the liquor sanguinis. Later it appeared that, in order that these factors should unite, it was necessary that a third substance should be present. This third substance has been traced to the white blood corpuscles; but in order that it may act in producing fibrine it must be set free by the disintegration of these corpuscles.

What are the reasons for believing that the white blood corpuscles contain the ferment necessary to coagulation of blood? These are well stated by Dr. Burden Sanderson in the *British Medical Journal*, January 12th, 1878. First, he shows that certain white blood corpuscles disintegrate from the moment that they leave the blood stream. The experimental proof of this is as follows: Blood from an artery or vein is caught in a tall jar in which it is rapidly cooled. The jar is now surrounded by ice, the blood remains uncoagulated, the red blood discs sink to the bottom, the white ones rise to the top, and serum separates the two. If the colorless liquid at the top be collected with a pipette, almost immediately it will be found to contain numberless colorless corpuscles, and if the observation be continued it is seen that a certain number of these leucocytes rapidly undergo disintegration. In the process of disintegration the corpuscle breaks up into granules, which hold together for a time in the liquid, but eventually disappear. Prof. Schmidt has seen the first formed filaments of fibrine originate from the heaps of granular *debris* which the corpuscles leave behind them. Further, if the white blood corpuscles be withdrawn coagulation is arrested. Proof of this is rendered possible by the fact that leucocytes, at the temperature of freezing, acquire such firmness and consistence that they are held back by the ordinary method of filtration. This being the case, the physiologist can obtain uncoagulated plasma free from leucocytes. The filtrate thus obtained is absolutely transparent and deprived of its power of coagulation. If now we wish the white blood corpuscles collected on the paper filter and add them to the decorpusculated plasma, the latter is restored to its original coagulability.

Pharmacy.

LISTER'S ANTISEPTIC MEDICAMENTS.—From Dr. Girard's official report to the Surgeon-General of the U. S. army, on Lister's antiseptic system of managing surgical cases, we copy the following formulas and details:

1. Carbolized solution, a five per cent solution of crystallized carbolic acid in water, is used to clean the neighborhood of wounds before operation, to disinfect instruments, as well as the hands of surgeons and assistants, and to wash out infected wounds.

2. Carbolized water, one half the strength of the last, used for the *spray*, and to wet the gauze dressing.

3. Carbolized oil, a five per cent solution of crystallized carbolic acid in olive oil, is used to oil catheters or other instruments, or the fingers when introduced into some of the cavities. It is employed also where the gauze dressing cannot be applied, as in abscess of the rectum; or when constant contact of the antiseptic with the surface is necessary, as in caries.

4. Solution of chloride of zinc, containing eight per cent of the zinc salt (liq. zinc. chlorid. one part, water three parts). When wounds have been exposed unprotected to the access of atmospheric air, they are swabbed out with this solution, which is more effective than the carbolic solution, but too powerful for use in ordinary dressings.

5. The antiseptic spray: For this the carbolized water, No. 2, is employed by the aid of a steam atomizer, the spray being directed upon the wound throughout the operation.

6. The "protective" is oiled silk, coated with copal varnish to render it impermeable, and then covered with a thin layer of a mixture of sixteen parts carbolized solution, with one part dextrine

and two parts starch, to facilitate adhesion of antiseptic fluids into which it is dipped before being applied to the wound. Its use is to prevent the irritating effect of contact of the antiseptic with the wound.

7. The *antiseptic gauze* may be procured already prepared. A substitute may easily be made from old mosquito netting, which is first steeped or boiled in lye, then thoroughly dried, and immersed in a hot mixture of carbolic acid one part, common resin five parts, and paraffin seven parts. The surplus liquid may be conveniently removed by passing the gauze through a common clothes wringer, which may afterwards be easily cleaned with boiling water and a cloth.

8. Catgut, employed for ligatures and deep sutures, is prepared by prolonged soaking in an emulsion of one part cryst. carbolic acid, liquefied by the addition of ten per cent water, and five parts olive oil. A glass disc, supported on some pebbles, should be placed in the bottom of the containing vessel, to prevent the catgut from coming in contact with the watery part of the emulsion, which ultimately subsides. It requires at least two months' maceration in the emulsion to render the catgut fit for use.

9. Salicylic cotton is prepared by first removing the fatty matter of the cotton by boiling in lye, and then treating it with a solution prepared by dissolving one part of salicylic acid with one part of alcohol in eighty parts of water. The addition of twenty per cent of glycerine is said to prevent the disagreeable dusting of the acid.

10. Sponges: All sponges employed in operations, or in dressing wounds, are kept immersed in the carbolized solution, No. 1; the same sponges may in this manner be used repeatedly without danger.

11. Drainage tubes are simply small flexible rubber tubes, of the size of a small quill to that of a little finger, with numerous openings on the sides, each of half the diameter of the tube.

12. Antiseptic silk: For superficial sutures, silk is preferred to the catgut; it is prepared by steeping for an hour in a hot mixture of one part crystallized carbolic acid and ten parts bees-wax, and then drawing between folds of cloth to remove the surplus wax.

13. Boracic water, containing three and a half per cent of boracic acid, is employed to moisten the boracic lint.

14. Boracic lint: The method of preparing this is similar to that described above under the head of salicylic cotton. It takes the place of carbolized dressings where these cannot be closely adapted to the skin, as in resection of the lower jaw and in hair-lip sutures.

15. Boracic ointment (acid. borac., cera albæ, aa. ten parts, ol. amygd. dulc., paraffin, aa. twenty parts): This is used spread on thin cotton, and applied to ulcers and granulating surfaces. It is neatly fastened to the skin by painting the edges over with collodion.

ALMOND POWDER FOR THE HANDS.—Almonds blanched and powdered, one pound; powdered white castile soap, eight ounces; powdered orris root, two ounces; powdered pumice stone, four ounces; oil of bitter almonds, two drachms.

INDELIBLE INK.—An aniline ink which is said to resist completely the action of chemicals, may be made by the following formula:

1. Dissolve seventeen grains of bichloride of copper in sixty grains of distilled water, and add twenty grains of common salt, and nineteen grains of aqua ammonia. 2. Dissolve separately thirty grains of hydrochlorate of aniline in twenty grains of distilled water, and mix with the solution twenty grains of mucilage of acacia (two parts water to one of gum arabic), and lastly, add ten grains of glycerine. Immediately before using, mix four parts of the aniline solution, No. 2, with 1 part of the water solution, No. 1. A steel pen may be used, and if it is desired to bring out at once the black color of the ink, a hot flat iron may be applied. If the cloth, after being marked, is put into tepid soap-suds, the writing acquires a fine bluish tint.

The following is another formula for a similar ink:

Take of aniline black one drachm; hydrochloric acid, sixty drops; alcohol, one and a half drachms. Rub well together in a mortar, and add a hot solution of one and a half drachms of gum arabic in six ounces of water.

ANTAGONISM OF COFFEE AND STRYCHNIA.—Dr. Attilis Letti (*London Lancet*) reports a case in which strychnine taken in an infusion of coffee failed to produce the expected fatal effects. He was induced to make some experiments on animals (rabbits), in which he found that the poisonous effects of strychnine were uniformly much diminished when administered in combination with coffee.

OIL OF EGGS; A VALUABLE RECIPE.—A German apothecary's apprentice describes the mode of preparing "oil of eggs" as follows: "I call on the lady of the house for one dozen eggs; I boil the eggs, separate the yelks from the whites; the clerks eat the yelks, the white is for the apprentice; into the bottle I pour oil of poppy seed."

CAUTIONARY LABEL.—To guard against accidents, the druggists in Cork place upon bottles containing liniments a label which reads as follows (*Medical Times*): "*Caution:* To all medicines for outward application this label is attached to the bottles, in order to distinguish it from others for internal use; but persons unable to read should not be allowed to administer medicines, and never give or take a dose without first perusing the label."

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

The Wayne County Insane Asylum.

The printed report of the special committee appointed by the Board of Supervisors, October, 1877, to investigate the Wayne County Alms House and Asylum has just been submitted, and brings to light a condition of things, especially as regards the management of the Insane Asylum, which is simply disgraceful.

"The first thing," to borrow the text of the report, "which presented itself was the the unmistakable enmity between Dr. Collar, the attending physician, and S. D. Curtis, the keeper of the asylum." As a result of this jealousy, can be placed much of the maltreatment and neglect of the poor lunatics entrusted to their joint care. From this cause at least two deaths have resulted, under the most sickening circumstances of inhumanity, which are detailed by the reporter of the committee as follows: "Two persons have died at the asylum under serious circumstances. The first was an inmate by the name of Bisch, suffering from paralysis. The fore part of June, Bisch fell down stairs, sustaining a bruise which in a few days resulted in erysipelas. The doctor was called at the second stage of the disease, and found the patient in a cell in the basement, where he was kept, the keeper states, owing to his being so filthy. The doctor ordered his removal at once, in the presence of the keeper and attendant (as he testifies), and prescribed a flaxseed poultice, but no medicine. The doctor testifies further that he called twice afterwards, and found the man Bisch in the cell each time; that he renewed his orders for his removal to the attendant, but they were disobeyed each time, and he ceased his visits in consequence of the same. Bisch died June 25, 1876. The keeper and attendant, on the other hand, testified that they did move the patient into an upper ward, but he was so filthy that the other inmates in the ward made threats against him, and, fearing that the disease was contagious, they returned him to the basement cell; that when he became worse he was again moved to an upper ward, where he died, and that he was returned to a cell after death. The other case was that of a lunatic named Durell, who died some time in October, 1877. This man, some two or three weeks before his death, became so violent that he had to be kept handcuffed and chained to the floor by his ankles. The paroxysms of this man were so violent that he thrashed about on the floor in such a manner as to bruise his body. The doctor saw the man every day, but did not, for some time after these fits, come or administer drugs to quiet him. By inattention, Durell's arm was so bruised and swollen that gangrene set in, and by the time the doctor was called it was too late, and the man died."

It is stated also that "the doctor keeps his dispensary at the poor-house, and all medicines for the asylum are sent from there without instructions or labeling the bottles. Sometimes he brings them himself or sends them by attendants, but more frequently they are sent by an epileptic, an inmate of the asylum, with verbal instructions as to the hour they should be given."

It is elsewhere suggested by the committee that "a number of duck straight-jackets are needed in place of the barbarous muffs now in use;" also that there ought to be "a room provided for violent cases, well padded above their reach, *to take the place of chains and manacles*," and, according to the testimony of two physicians, who were called in to aid the committee in its investigations," the dressing of women in male attire should be deprecated" (as an amusement) "as it tends to produce undue and hurtful excitement, and amusements of a soothing nature alone should be adopted!!"

Comments upon the facts elicited by the committee are almost needless, as they present a picture of inhumanity, ignorance and incompetency in the management of the asylum, which is vivid enough, in all conscience, without the necessity of intensifying it.

They point to the need of an entire revolution in the management of this institution, and enforce the lesson of the folly and cruelty of appointing men to the management of such institutions who, from training, and mental and moral capacities, are utterly unfitted for the charge. The care of an insane asylum should be in the hands of a specialist, whose authority should be paramount in the institution, and not to be contested by any keeper. With such a man in charge, at a living salary, not only would the patients reap the benefit, but the resources of the institution would be managed to much better advantage, and the expenses reduced. The institution would then become a credit to the county, and not as it is now, an opprobrium to which every citizen acquainted with the facts of its present management refers with disgust. Will the superintendents see to it? Will they for once sink political considerations, and, listening to the wail of the chained and manacled, bruised and sick lunatics at Wayne, provide humane and competent management for them, even if that management does not carry votes and political influence? H. A. C.

Copyright Remedies.

In perusing the advertisements of any medical journal, from time to time, one cannot help observing the increasing numbers of copyright pharmaceutical preparations which are being brought before the profession. In examining the construction of many of them, one is led to wonder on what principle of justice they have been copyrighted at all. Some of them are not even original; many of them, as far as my experience with them has gone, are almost inert as remedies, and the few that possess merits are sold at such a high price as to discourage their general use in prescriptions.

Can any one explain why, if it is deemed unethical to patent a surgical instrument or appliance, it should be deemed any more in accordance with the spirit of the code of ethics, to copyright a prescription? The principle involved, it seems to me, in both cases is the same. If it is unprofessional to keep secret, or in any manner surround, a new mode of cure, so that the discoverer can alone practice his plan of treatment and reap the pecuniary benefit accruing, should it be deemed any less so to copyright a pharmaceutical preparation, where in virtue of the copyright the proprietor alone has the right to manufacture?

A few of these preparations are proving of real value, and it seems a pity that from their high price (which is, as a usual thing, far in excess of their intrinsic value), their usefulness should be circumscribed. Proprietors of those of them which are really of value would, I am sure, in the end be the gainers by removing the copyright and presenting them to the profession. This has been done in one notable instance, as in Scheffer's Pepsin, with no loss to the donor. The profession, in deference to the spirit of its ethics, its own pecuniary interests and those of its patients, should discourage the use of these preparations as far as possible. H. A. C.

Memoranda.

The death rate at St. Petersburgh, Russia, for the third week in January, 1878, was 44 per 1,000.

The Yorkshire, England, women are confined with their clothes on. After delivery they strip, wash and jump into bed.

Dr. Wilson Fox has withdrawn from the British Medical Association because women have been admitted to its meetings. Probably others will do likewise.

On page 14 of the DETROIT LANCET, "culpa data," as it occurs in the eighth line from the bottom, should read "culpa lata."

The German medical schools during the past year numbered 6,116 students. Of these Vienna had 755, Berlin 281, Strasburg 222, Heidelberg 84, Rostock 34, etc.

Dr. A. N. Bell says that "Garden City, Long Island, N. Y., as a place of residence comprehends more of the conditions promotive of health than any other place with which he is acquainted." Let us have more Garden Cities.

The *Western Lancet* has been increased to 69 pages at $2 50 per year. Dr. George Hewston and James Simpson, professors in the University of California, are its new editors.

The name of Dr. Wm. A. Hammond has by special act of Congress been placed upon the list of retired surgeon-generals of the U. S. Army.

Dr. Edward C. Loring, after a very careful study of all of the elements involved, says that the "unquestionable increase in myopia is solely owing to defective hygienic arrangements in schools and the injudicious use of the eyes at a tender age."

Delafield's Studies in Pathological Anatomy for March contains five plates illustrating the minute structure of the pleural walls. The accompanying letter-press adequately explains the plates. The results in the main corroborate those of Dybkowsky and Klein. Would that it were possible to induce the entire profession to follow these studies.

The amenities of professional debate are strikingly exhibited by Drs. J. J. Woodward and Roberts Bartholow, in the pages of the *Cincinnati Medical News.* Primarily the topic was typho-malarial fever. Laterly the space is mostly occupied by personalities, to say the least, in bad taste.

The Prize Committee of the Alumni Association of the College of Physicians and Surgeons, New York, say that no essay was presented worthy of the prize, which is two hundred dollars. Perhaps, had the prize been a thousand dollars, a better assortment of essays might have been presented. It may not be apparent to all, but nevertheless it is a fact that the materials for the experiments, to say nothing of the books and time, are expensive. Without such materials, books, etc., no first-class essay can be written. Those with large private fortunes at their disposal might probably write if they would. But either they cannot, or will not, or else the medical profession contains few such.

Graduates of American Medical Colleges.—

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Kalamazoo District Medical and Surgical Association. —At a meeting of regular physicians and surgeons from Kalamazoo county and others to whom Kalamazoo is a natural center, held on the 27th of February, the above named association was duly organized with twenty members, and with a fair prospect that its membership may reach nearly or quite forty.

The following officers were elected for the ensuing year: President, H. O. Hitchcock, M. D., of Kalamazoo; First Vice-President, B. Barnum, M. D., of Schoolcraft; Second Vice-President, E. B. Dunning, M. D., of Paw Paw; Board of Censors—I. W. Fiske, M. D., Kalamazoo; H. W. Upjohn, M. D., Kalamazoo; Milton Chase, M. D., Otsego; Secretary and Treasurer, J. M. Snook, M. D., Kalamazoo. The Censors were made an Executive Committee. The meetings of this association are to be held on the last Wednesdays of April, July, October and January, at Kalamazoo, unless otherwise determined at a previous meeting.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

THE SCIENCE AND ART OF SURGERY. Being a treatise on surgical injuries, diseases and operations. By John Erichsen, F. R. S., etc. Revised by the author. From the seventh and enlarged English edition. Two volumes of about 1,000 pages each. Sheep; $10.00. Philadelphia: Henry C. Lee. 1878.

In our student days "Erichsen's Surgery" was the best in the market, and a careful examination of the volumes before us shows that it has lost none of its old time prestige. With each edition it has regularly increased in size, until its present portly dimensions have been reached. More truly than most re-issues, its several editions have been remodeled to meet the demands of the subject at date of writing. The obsolete has been cast aside, the incomplete completed, and the new stated in its proper connections. Of the eight hundred and sixty-two engravings one hundred and fifty are new, being drawn from nature expressly for this work. We notice a marked improvement in many of the old ones, showing that they have been redrawn. Thus, even more than hitherto, the illustrations of "Erichsen's Surgery" will promote the correct understanding of the text. One characteristic of this work is that it not only correctly describes the injuries, diseases, etc., met with in surgical practice, and the proper manual or operative measures for their relief, but it calls constantly for general medical knowledge and a thorough acquaintance with all the conditions intrinsic to the patient or extrinsic, that favor or prevent his restoration to health. The work of American surgeons is as fully recognized and quoted as the most enthusiastic American could wish.

In his treatment of subjects that have grown into specialties the author has been singularly happy. The chapter on ophthalmic surgery was prepared by Dr. J. F. Streatfield, and is a marvel of condensed knowledge. The treatment of diseases of the ear is far less satisfactory. Chapters on the larynx, and on the male and female generative apparatus, are far better. For clear statement, graphic description, and a broad, scientific grasp of the entire range of surgery in its truest and best sense, the volumes before us deserve the highest praise. The mechanical execution of the work fully sustains the well earned reputation of the publishers.

CEREBRAL HYPERÆMIA, THE RESULT OF EMOTIONAL DISTURBANCE. By Dr. Wm. A. Hammond. Paper; pp. 108. New York: G. P. Putnam's Sons. 1878.

Cerebral hyperæmia and anæmia are favorite topics of Dr. Hammond. In the essay before us, first read before the New York Neurological Association, he has collected together items from his previously published writings, and presented them for consideration. It was done, doubtless, on the principle that the medical profession needed "line upon line" respecting cerebral hyperæmia, in order to appreciate the author's contribution to this subject. The book is pleasant reading, a characteristic of all the author's writings, and one which we have always admired. Right or wrong, his convictions are so grouped and stated as to compel the attention of the most careless reader.

Further attention is directed to a very important topic, the abuse of the brain by overwork or inordinate emotional disturbances. But it seems to us neither sound physiology or pathology to ascribe all the results of such abuse of the brain to a disorder in the circulation of the blood, be it too much or too little. True, we admit that such disorder exists, but at the same time evidently the lymphatic system must be disordered, and the balance of repair and waste in the nerve cells and fibers must be lost, in short, the entire cerebrum is disordered, not simply the blood-vessels. It seems to us as rational to call phthisis pulmonalis an anæmia of the lung induced by certain causes. In short, we regard cerebral hyperæmia in the same manner as all other hyperæmias, as being only one of the factors in complex disturbance of nutrition. Viewed from this stand-point, the study of vascular disturbances in the brain has a definite value. Blood-vessels supply the materials for repair of brain matter and remove the waste or refuse materials, but in the disorders under consideration the prime and most essential element of disorder is the over or otherwise improper activity of the nerve cells. The very remedies employed to relieve the so-called hyperæmia, probably produce their effects on the blood-vessels by first modifying the abnormal nerve cell action. But we have not space to pursue this subject farther at this time.

THE ACTION OF MEDICINES. By Isaac Ott, A. M., M. D., with twenty-two illustrations. Cloth; pp. 168. Philadelphia: Lindsay & Blakiston. Price, $2.00. 1878.

This little book opens with a concise answer to the question "How shall we study the physiological action of medicines?" The animals to be employed, explicit directions as to manipulating them, and the various instrumental aids required in the study, are all detailed with the fullness required for practical working. Then follow chapters teaching the methods for studying the action of remedies on the nervous system and circulatory apparatus. Lastly is given the results obtained by these studies respecting a variety of drugs. Studies such as these will erelong introduce a degree of accuracy in the use of drugs hitherto only dreamed of. We trust that Dr. Ott will continue to work in a field so fruitful for good, and for which he seems especially adapted both by disposition and training.

HAND-BOOK OF THE PRACTICE OF MEDICINE. By M. Charteris, M. D. Illustrated. Cloth; pp. 330. Philadelphia: Lindsay & Blakiston. Price, $2.00. 1878.

PRACTICAL GYNÆCOLOGY. A hand-book of the diseases of women. By Heywood Smith, M. A., M. D. Cloth; pp. 203. Philadelphia: Lindsay & Blakiston. Price, $2.00. 1878.

Respecting the above works, our first remark is that our judgment tells us that the authors have attempted an impossible task. To compress the practice of medicine within three hundred and thirty pages, or practical gynæcology within two hundred pages, is to compress an hundred bushels of corn into a quart measure. Nothing would rejoice us more than to find that such a wonderful feat had been accomplished. Had the authors been as successful as Roberts or Bristowe, in compressing their materials within a thousand large pages, we think they might have done a commendable work.

On the other hand, we must say that, according to their method, these authors have done remarkably well. In good English they have given a vast number of facts with reference to the subjects discussed. At the end of each volume they have stated a number of typical prescriptions, as examples of those called for in the progress of various diseases. In short, we can cordially commend their works to those who desire so much of the subjects discussed as can be stated within the prescribed limits. But those who expect to learn either practical medicine or gynæcology from them will suffer great disappointment.

BATTEY'S OPERATION. By Dr. J. Marion Sims. Paper; pp. 31. London: T. Richards. Reprint from *British Medical Journal.* 1878.

In this paper Dr. Sims gives us a brief account of twelve cases operated on by Dr. Battey, and seven operated on by himself. Of Battey's cases, two were operated on by abdominal section and ten by vaginal section. Of Dr. Sims's cases, three were operated on by abdominal section and four by vaginal section. The doctor draws the following inferences from his analysis of the cases: 1. Remove both ovaries entire in every case. 2. As a rule, operate by the abdominal section, because if the ovaries are bound down by adhesions, it is possible to remove them entire, whereas, by the vaginal incision it is impossible. 3. If we are sure that there has been no pelvic inflammation, no cellulitis, no hemotocele, no adhesion of the ovaries to the neighboring parts, then the operation may be made by the vagina, but not otherwise. In his list of the entire number of operations performed by all operators, he shows that of twenty-eight operations there were but five deaths. Under what conditions may the operation be resorted to? "1. In cases of amenorrhea, where there is no uterus or only the rudiments of one, or where there is an incurable atresia uteri and the menstrual molimen produces such violent disturbance of the whole system as to destroy health and endanger life, the removal of the ovaries is the only means of permanent relief. 2. In cases of prolonged physical and mental suffering attended with great nervous and vascular excitement produced by perturbed menstrual molimen, whether menstruation be absent, scanty, or otherwise, this operation is justifiable after all the usual remedies fail to relieve. 3. In cases of incipient insanity, and of epilepsy depending upon ovarian and uterine disease, this operation is justifiable after all other remedies have failed to cure. 4. In cases of fibroid tumors of the uterus, attended with incurable hemorrhages that endanger life, when tumors cannot be safely enucleated and removed, this operation may be resorted to with the hope of arresting the bleeding and the prospect of diminishing the tumors. 5. In cases of pelvic cellulitis and of recurrent hematocele, when the attacks are traceable to the disturbing influences of the menstrual molimen, we may have recourse to this operation as a *dernier resort.*"

LESSONS IN LARYNGOSCOPY, INCLUDING RHINOSCOPY, AND THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT. By Prosser James, M. D., M. R. C. P. Second edition, with colored plates. Cloth; pp. 172. London, England: Baillière, Lindall & Cox. 1878.

Although written in 1873, these lessons are scarcely less instructive now than they were then. They make no pretension to an exhaustive discussion of the subject, but they aim to give the facts needed to begin the study of these very interesting subjects. Further, the directions for practical manipulations and the descriptions of the needed instruments are more than usually clear and simple. Numerous wood cuts and colored plates materially aid the student in his practical appreciation of the text. On the whole, we think that Dr. James has done excellent service to all students and general practitioners by this publication. For all such we know of no work of greater value.

ON THE TREATMENT OF CHRONIC ECZEMA BY A GLYCEROLE OF THE SUBACETATE OF LEAD. By Belmanno Squire, M. B. Reprint from *Medical Times and Gazette.* London: J. & A. Churchill. Paper; pp. 43.

The above preparation of lead is manufactured in the same manner as the liquor plumbi subacetas, B. P., only that glycerine is used in place of the water. Thus made, the author has found the glycerole of lead far more generally useful than the benzoated oxide of zinc ointment or the unguentum diachyli, in the treatment of chronic eczema.

ON THE TREATMENT OF PSORIASIS BY AN OINTMENT OF CHRYSOPHANIC ACID WITH AN APPENDIX OF COMMENTS BY VARIOUS AUTHORS. By Belmanno Squire, M. B. London: J. & A. Churchill. Paper; pp. 100. 1878.

This is the most complete account of the action of this drug in skin diseases that we have met. The author's experience shows that by means of it psoriasis can be more rapidly remedied than by any other known means. Further, he finds it valuable in pityriasis versicolor, in certain forms of chronic eczema, in acne rosacea, in lichen planus, lichen niveteratus and acne juvenilis. Full directions are given for the use of this powerful drug as well as the necessary cautions.

ON THE RECOGNITION AND MANAGEMENT OF THE GOUTY STATE IN DISEASES OF THE SKIN. By L. D. Bulkley, A. M., M. D. Reprint from *American Practitioner*, November, 1877. Paper; pp. 25.

A capital description of the gouty state, with suggestions as to its successful management.

ON THE SO-CALLED ECZEMA MARGINATA OF HEBRA AS OBSERVED IN AMERICA. By Dr. L. D. Bulkley. Reprint from Chicago *Medical Examiner*, November, 1877. Paper; pp. 28.

Of this rare affection Dr. Bulkley has here detailed twelve cases. As here described it is a parasitic disease located on the thighs near the groins. The author has best succeeded in treating it by the local application of a strong solution of sulphurous acid.

ARE ECZEMA AND PSORIASIS LOCAL DISEASES OF THE SKIN, OR ARE THEY MANIFESTATIONS OF CONSTITUTIONAL DISORDERS? By Dr. L. D. Bulkley. Extracted from transactions of the International Medical Congress. Paper; pp. 19.

The author's conclusion is that both eczema and psoriasis are manifestations of constitutional disorders, and not local diseases of the skin.

BATHS AND THEIR USES IN THE TRREATMENT OF DISEASES OF THE SKIN. A valedictory address to the class on diseases of the skin at the Philadelphia School of Anatomy and Surgery. By Dr. John V. Shoemaker. Paper; pp. 31. Philadelphia: Collins, printer, 705 Jayne street. 1878.

A very readable account of the subject matter—one of vast moment.

NOTE ON HYDROBROMIC ACID. By Dr. Edward R. Squibb. 1878. paper; pp. 11. Reprint from the transactions of Medical Society, State of New York.

In another part of the LANCET we shall give the salient features of this paper.

SURGICAL TREATMENT OF INTRA-UTERINE SUBMUCOUS FIBROIDS. By E. T. Easley, M. D. Paper; pp. 15. Reprint from *Richmond and Louisville Medical Journal*, February, 1878.

A careful study of an important topic by a diligent student.

PUBLIC ACTS AND JOINT AND CURRENT RESOLUTIONS OF THE LEGISLATURE OF THE STATE OF MICHIGAN, PASSED AT THE REGULAR SESSION OF 1877. Pp. 355, with an index to general laws covering two hundred pages. W. S. George & Co. 1877.

BATHING, CUPPING, ELECTRICITY AND MASSAGE. A comparison of the therapeutic effects of these agents in the treatment of debilities, deformities and chronic diseases. By David Prince, M. D. Pp. 15. Reprint from *American Practitioner*. 1878.

CLINICAL GYNÆCOLOGY. By W. H. Wathen, M. D. Paper; pp. 12. Reprint from *Richmond and Louisville Medical Journal*. 1878.

ON THE DRESSING OF STUMPS. The Old Method; Lister's Antiseptic Plan; The Bordeaux Plan; Burow's Plan Modified by the author, Dr. Louis Bauer. Paper; pp. 15. Reprint from *St. Louis Clinical Record*.

PLASTIC SPLINTS IN SURGERY. By Dr. Henry O. Marcy. Paper; pp. 9. Reprint from *Boston Medical and Surgical Journal*, June 28th, 1877.

THE DETROIT LANCET.

VOL. I. MAY, 1878. No. 5.

Original Communications.

Pelvic Inflammation.

READ BEFORE THE DETROIT MEDICAL AND LIBRARY ASSOCIATION BY HELEN WARNER, M. D.

The history of pelvic inflammation has been written almost entirely within the past thirty years. There seems to be some difference of opinion as to the knowledge of this affection actually possessed by the ancients. Simpson finds a very good description of pelvic cellulitis in the writings of Paul of Egina, and another in those of Actius, while Nonat thinks that Paul, at least, refers only to an inflammation of the posterior wall of the uterus, and quotes the following passage in proof of his assertion: "Posteriore uteri parte inflammata in ombilico potissimum cum tumore infestat." But I fear that M. Nonat's eagerness to vindicate the originality of his own investigations biased him somewhat. It seems evident enough that, though the Greek author may not have understood the pathology of the affection he was describing, it was nothing else than peri-uterine inflammation; for inflammation affecting the posterior walls of the uterus alone was in the first place rather forced, and in the second, could hardly, at least in the non-puerperal state, give us a tumor rising to the umbilicus.

But, whether or not Paul of Egina understood the pathology of peri-uterine inflammation, no such wisdom enlightened the minds of the men who came after him. As late as 1743, M. Puzor, in a treatise on obstetrics, much esteemed at the time, ascribes the tumefactions of the broad ligaments, so often noticed in puerperal women, to collections of milk, which he considered as peculiarly liable to take on inflammation and degenerate into pus. Even Van Swieten and Antoine Petit held this singular doctrine. The milk theory was exploded near the commencement of the present century, but it was not till between 1840 and 1850 that pathological ideas on the subject became at all clear, if, indeed, they can yet be said to be so.

When attention was first drawn to peri-uterine inflammation, it was considered principally in the puerperal condition. Marechal de Calvi, whose memoir on the subject seems to have attracted great attention, published fifty cases, of which forty-nine were puerperal. Drs. Doherty and Churchill, in their articles in the *Dublin Medical Journal*, 1843 and 1844, among the earliest English articles published on the subject, have, out of twenty-four cases, twenty-two puerperal. Dr. Lever, in a paper in Guy's Hospital Reports, 1844, published nine puerperal cases. Indeed, Henry Bennett, writing as late as 1852, in the third edition of his work on Uterine Inflammation, seems to labor under the impression that he is original in describing inflammation of the pelvic cellular tissue in the non-puerperal woman.

In France, Nonat was the first who gave special attention to pelvic inflammation in the non-puerperal state. He directed his attention exclusively to the cellular tissue, especially that lying between the folds of the broad ligaments and around the neck of the uterus, between the peritoneum and the vagina. He by no means denies the possibility of a peritonitis confined to the pelvis, but he thinks it rare, and always secondary to an inflammation of the cellular tissue. This theory was resolutely combated by MM. Bernutz and Gonfil, who claimed that the cellular tissue rarely, if ever, inflames; that the so-called cellulitis is really a peritonitis, confined to the pelvis. They substaniated their doctrine by two or three *post-mortem* examinations of cases supposed during life to be cellulitis, but in which the peritoneum was found to be alone involved. One of these cases derived additional weight from having been for a time under the care of M. Nonat himself, and diagnosed by him as a case of cellulitis. Owing to the great influence of MM. Bernutz and Gonfil, the doctrine of "peri-uterine phlegmon" was received with more reserve in France than in either Germany or England. Courty, in a very exhaustive and able article on pelvic inflammation, considers cellulitis, though demonstrated, as yet very rare in comparison with inflammation of the pelvic peritoneum. Most gynæcologists have chosen a middle course between the extreme views of these teachers; have accepted both, giving, according to their several inclinations, prominence to one or the other species of pelvic inflammation, but, in the effort to discriminate between them, often contradicting each other, and overwhelming the student or young practitioner, anxious to make an accurate and careful diagnosis, with great perplexity.

To illustrate, Dr. Thomas, perhaps the most popular authority in this country on gynæcology, and one who, whatever may be said of the accuracy of his views, rarely fails in expressing them clearly, has tabulated the points of differential diagnosis between pelvic cellulitis and peritonitis as follows:

Cellulitis.	*Peritonitis.*
1. Tumor easily reached; generally felt in one broad ligament; may be felt above the pelvic brim.	Board-like feel to the vaginal roof. Tumor very high, only felt in the vaginal cul de sac; does not extend above the superior strait.
2. Marked tendency to suppuration.	Suppuration rare.
3. Abdominal tenderness in one iliac fossa.	Abdominal tenderness excessive above the brim.
4. Tumefaction laterally in the pelvis.	Tumefaction near or upon the median line.
5. Tendency to monthly relapse not marked.	Tendency to monthly relapse very marked.
6. Pain severe and steady.	Pain excessive, often paroxysmal.
7. Facies not much altered.	Very anxious.
8. Nausea and vomiting not excessive.	Nausea and vomiting often excessive.
9. Not accompanied by tympanitis.	Always accompanied by tympanitis.
10. Uterus fixed to a limited extent.	Uterus immovable on all sides.
11. Not necessarily displaced.	Always displaced.
12. Cause. Parturition, abortions, operations on the pelvic viscera.	Diseases of the ovaries, gonorrhea, exposure during menstruation fluid in the peritoneum.

Now, this differential diagnosis has the fallacious appearance of being so clear that the most careless observer could hardly confound the two conditions; but let me compare it first with the opinions of other authors to whose works I have access, and secondly, with the notes of five cases of pelvic inflammation in non-puerperal women, which occurred under my own observation. Simpson speaks of the board-like hardness in the roof of the vagina which Thomas gives as a diagnostic sign of peritonitis, as a symptom of cellulitis, and ascribes it to the effusion of lymph between two layers of fascia. He also says that the tumor is commonly felt in one or the other iliac fossa, it may be in the median line. He ascribes the cases largely to exposure during menstruation. He thinks the symptoms of the two inflammations nearly identical, only that the peritonitis is much the graver of the two affections.

Schroeder, of Ziemssen's Encyclopedia, agrees with Thomas in the main, but thinks that, though the tumor in pelvic peritonitis is generally small and flat, it may attain to enormous size; and gives two cuts, in each of which the tumor rises at least as high as the umbilicus. Aran, on the other hand, says distinctly that though small tumors may be due to engorgements of the cellular tissue, all large, inflammatory tumors are owing to peritonitis. Courty is equally explicit. Never, he says, has an inflammatory tumor of any considerable size been formed in the pelvis exclusively at the expense of the peri-uterine cellular tissue. The autopsies have shown that they result almost always from an inflammation more or less extensive of the peritoneum itself.

He has the grace to acknowledge that the diagnosis between the two species of inflammation is extremely difficult, and gives one diagnostic symptom of cellulitis which I have never seen either in any other book, or at the bedside in that connection, œdema of the vagina and vulva.

The first case I have to offer was a Mrs. W., æt. about 47, but still menstruating; a widow. Had been ill when I saw her about four weeks with nausea, vomiting, slight fever, and great abdominal tenderness; the exudation was first felt to the right of the uterus, but soon spread over the whole pelvis, fixing the uterus and pressing it low down in the pelvis, the roof of the vagina being as solid as plank. The temperature varied between 99 and 102½; the pulse between 80 and 90. There was a good deal of prostration, profuse night sweats, but no formation of pus, and no tumor felt above the pelvic brim. The case lasted in all about ten weeks. I examined her about three months after she was able to be out, and found the uterus perfectly movable, no trace of the exudation remaining. This case might pass very well for a case of pelvic peritonitis, according to Thomas, except that the exudation was felt low in the pelvis, that there was no tendency to relapse at the menstrual periods, and no adhesions remained.

CASE II.—I only saw once, in consultation, for the purpose of making the vaginal examination, to which she objected from the attending physician. She was a young married woman, about 25. Had been ill for some time, and for several weeks had passed pus from the rectum. There was the same board-like hardness of the vaginal roof and fixation of the uterus, which was high in the pelvis. An abscess had formed behind the uterus, which discharged by a free opening into the rectum. The patient was ill for months, but finally recovered. No cause could be assigned for either of these two cases.

CASE III.—Was a young married woman, nullipara, who had suffered before marriage from antiversion and endometritis. The attack followed in her case a pretty free division of the cervix by Dr. Sims, it being the second time she had submitted to the operation. She came home within two weeks of the operation, and was taken ill almost immediately. When I saw her she had been ill about two weeks. The right iliac fossa was considerably tumefied, and the exudation could be distinctly felt by external palpation alone. There was great distress on defecation and micturition. Tympanitis was very marked, and added greatly to the discomfort. There, was some nausea and vomiting; moderate fever; the temperature never rising above 102.5. The uterus was forced low down in the pelvis, exquisitely tender, and surrounded by a firm collar of exudation, like that figured by Dr. Barnes, in his article on Pelvic Inflammation. A hardened mass filled the pelvis on the right side, rising into the iliac fossa, and forming the tumor felt externally. The exudation was firm, but had none of the board-like hardness of the first two cases. There was marked tendency to relapse at the menstrual period. The case lasted about six weeks; a catarrh of the uterus remained, which yielded very slowly to treatment. There were no adhesions. This case illustrates more perfectly than either of the others the difficulty of diagnosis. The traumatic cause, the position and consistency of the swelling, and the lack of adhesions, point to cellulitis; the tympanitis, the great abdominal tenderness, the tendency to recur at the menstrual period, to peritonitis.

Case IV.—Had two attacks under my observation, and I am inclined to think had had at least one, and perhaps more, before I saw her. She was a married woman, aged 35; had had four children. When I first saw her she was suffering from endometritis and engorgements of the neck, with a profuse acrid discharge, containing a good deal of blood. The neck of the womb was very sensitive; the body was held down, but not very tightly, by adhesions on the posterior surface. There was a small, but exceedingly tender swelling on the right side of the uterus. In the course of the treatment this disappeared entirely, but about four months after, when she had nearly recovered from the uterine difficulty, she took a violent cold, in consequence of lying down to rest when fired and overheated, in a room imperfectly warmed. When I next saw her she had considerable fever; temperature 103, pulse 112. Complained of intense pain on micturition and defecation, and constant and severe pain in both iliac fossæ—more severe in the right. On examination, I found tumors on each side of the uterus, located evidently in the broad ligaments, the one on the right side being somewhat the larger—about the size of a small orange, and, though not fluctuating, not very hard, rather doughy in feeling. The menses came on within a week from the commencement of the attack, and seemed to relieve rather than aggravate it. At the close of the next menstrual period every trace of exudation had disappeared. So, the uterine disease being nearly removed, and no trace of the pelvic inflammation remaining, I ventured to insert a pessary, a block tin ring of Sims', bent into the shape of a Rodger's double lever, with the design of putting the adhesion on the stretch and raising the uterus as nearly as possible to its proper place in the pelvis. I instructed the patient to remove the instrument if she felt any inconvenience from it, and saw her again the third day. I found that the pessary had been tolerated very well for thirty-six hours, but after that time some discomforts had been experienced, but, knowing that I intended visiting her in the morning, the patient had put off removing the pessary till my arrival. I found her suffering some pain, feverish, complaining of creeping chills. On examination, the uterus was found somewhat sensitive; on the right side of the uterus, about the point of the insertion of the broad ligaments, there was a point of induration, not larger than a bean, but exquisitely tender. In spite of antiphlogistic measures, the inflammation developed. The tumors appeared as before on both sides of the uterus; the one on the right disappearing more slowly, and seeming to recede from the uterus toward the side of the pelvis as it decreased in size. After it was fully developed it was not especially sensitive. The tumefaction did not entirely disappear till after the second menstrual period. The menstrual discharge during these attacks was very free, though not amounting to hemorrhage, and produced marked relief. The diagnosis from other affections of the pelvic organ is comparatively easy, though there are some cases where there might be difficulty in distinguishing between a subacute inflammation and a commencing tumor of the ovary or broad ligaments.

A woman came to me about a month ago, complaining of pain on micturition, and mentioned incidentally that she had suffered pain in the right iliac region for two or three days past. I saw her about six months ago, and she assured me that she had been unusually well in the interval, till within two or three days. I found on examination a tumor, perhaps two inches in diameter, occupying the right side of the pelvis, free from the uterus, and very slightly sensitive, exactly similar in feeling to the tumor in case No. 4, when the process of resolution was well under way. I don't think it had any connection with the pain on micturition, as the patient was subject to irritation of the bladder on taking cold, and had several times consulted me on that account. There was not the slightest fever. I confess myself in doubt about the diagnosis. I gave the woman an infusion of buchu for the irritable bladder, advised her to paint her side where she had the pain with tinct. iod., and said nothing to her about the tumor, considering that if it was inflammatory it was in process of resolution, and would probably disappear of itself; and if ovarian she would have time enough to worry about it after it began to trouble her. I have heard nothing from her since, and conclude she has had no further trouble.

The Pathology of Joint Affections.

BY DANIEL LA FERTE, M. D., LECTURER ON ORTHOPEDIC SURGERY, DETROIT MEDICAL COLLEGE.

The important functions which the several joints play in the human economy render the study of the diseases commonly found in those parts of great interest. The anatomist, in examining an articulation, observes the neatness and exactness with which its several parts are put together. The delicacy of some of the structures also claims a share of his attention. Their situation between two or more solid bones would seem to render them very liable to diseases arising from forcible wrenching or twisting of the articular surfaces against one another. He recognizes the fact that they are frequently the seat of severe trouble, but he wonders what earthly reason can there be for referring almost all these troubles to a scrofulous or tubercular taint of the system.

The pathologist does not refer us to the joints in particular to search for scrofula or tubercles. Neither does he tell us that the diathesis collects in a joint, explodes, and a cure is accomplished.

That surgeon, on the other hand, who inclines too strongly to the constitutional origin of the malady accomplishes, it would seem, a great cure in some cases by a very simple process. If he find a collection of matter in a joint, he evacuates it, washes the part daily with some detergent lotion, extracts particles of diseased bone, if he finds them there, and if the patient recovers, he must have cured the scrofula, which expended all its force in that joint. The common practice in those cases is to administer freely the different preparations of cod liver oil and iron. Take a less severe case: an apparatus is applied, extension and counter-extension is resorted to, internal remedies are administered, and in a large proportion of the cases recovery takes place, or, in other words, the scrofula is cured. If such be true, is it not to be regretted that more people do not suffer from joint affections? Where is the man or woman suffering from either tubercle or scrofula who would not gladly sacrifice the functions of extension and flexion of this knee-joint, or be willing to part with the whole limb, if by that means the constitution were purged of such a loathsome disease? It is difficult to understand upon what grounds the majority of surgeons stand so firmly proclaiming the scrofulous doctrine.

To one inclined to be more liberal in his views, it seems that other causes might act in producing the trouble. A glance at the anatomy of the parts shows them to be composed of bone, cartilage, fibro-cartilage, ligament and synovial membrane, all of which have more or less abundantly distributed in them blood-vessels, excepting, perhaps, the cartilage, upon whose exposed margins only blood-vessels are seen running in loops. Since the parts are well supplied with arterial trunks, we are naturally led to the belief that irritation from traumatic causes, catching cold, sudden checking of the perspiration, etc., will cause a determination of blood to the parts subjected to these causes. This, it is well known, is an established principle in pathology. The blood thus accumulated at one spot may become absorbed after the manner that a simple conjunctivitis disappears.

But the injury may have been severe, and the quantity of blood effused great. By a fall, blow or kick the ends of the bones may have been wrenched together so forcibly that rupture of one or more blood-vessels may have taken place. The result is an extravasation of blood, sometimes abundant, under the articular lamella of the bone—a blood blister, as it were. Starting now from this point (assuming that the effusion is not re-absorbed), and following it up until we reach that stage when the disease is called scrofulous joint, white swelling, etc., its course would seem to be the following: The effusion occludes the vessels, which after a time become distended; their walls thinned in consequence, blood cells escape through them into the tissues around. These become infiltrated and softened, and as a consequence break down. We have then ulceration, and around the ulcer congestion. The same thing takes place in chronic ulcers of the legs, where, if the disease has existed for a certain length of time, the bone underneath becomes softened and infiltrated with grumous blood.

The patients suffering from diseased joints are not in the greatest proportion the sickly, puny and anæmic; on the contrary, they are frequently possessed of strength, vigor and activity defore the disease has advanced so far as to undermine the constitution. It cannot be denied, however, that scrofula may act as a cause of these diseases, and these will be found, in that case, to prove most rebellious to the best known means of treatment. They are the ones, in fact, in which by far the largest proportion, after causing months and even years of suffering, at last consign the victims to the grave.

The large number of cases that end favorably certainly have some other cause as a starting point. We do not wish to be biased; we have no desire to mislead; we respect the memory of the pioneer investigators in this branch of orthopedic surgery; but we honor those of our day who have demonstrated beyond any doubt that a large proportion of joint diseases are traumatic in their origin. We should be guarded, that we be not led too far in this direction, for there are some wild enough to assert that an injury received to-day, the present effects of which will pass off to-morrow, may six months or a year hence develop trouble in the injured joint. By any sober, thinking mind, this must be regarded with grave doubt. Does it not seem rational that if the injury caused a determination or an effusion of blood to a joint, and if it has become absorbed, the cure is accomplished without any tendency to recur? If absorption did not take place completely, the remainder must become organized into lymph before the lapse of several months, interfering to a greater or less extent with the function of the part. If, then, an injury is the exciting cause, trouble must be there present and manifest from the time of the receipt of that injury.

How, if we adhere to the scrofulous theory, can be explained the fact that the largest proportion of cases occur in the lower extremity? If the traumatic cause is granted, then we understand why this should be so when we consider how much more the lower limbs are exposed to injuries of the delicate structures interposed between the articular ends of the bones. And how much more extensive the synovial sacks in these are than in the upper extremities.

The following cases are reported for the purpose of supporting some of the views here expressed. None of them were hospital cases, but occurred in private practice, among people enjoying the comfortable walks of life. Indeed, the two cases which terminated most unfavorably were patients upon whom no amount of money was spared by the parents in the endeavor to restore their children's health.

CASE I.—Lizzie M.; age, sixteen years; pale and anæmic; suffering from chronic inflammation of knee-joint. Her appetite was poor, bowels very irregular, hectic every afternoon, passed sleepless nights, her diseased extremity atrophied, leg flexed at almost a right angle with the thigh from reflex contraction of hamstring tendons, and the tibia displaced backwards into the inter-condyloid notch. The patient had been under the care of a homeopath for eighteen months before I saw her, receiving a course during all this time of internal remedies, and locally some lotion was applied. The constitution being severely undermined, I saw that something must be done at once. She was etherized and the limb forcibly extended by breaking up the adhesions. It was secured in this position by the application of a silicate of soda bandage, which, when dry, was slit in front to permit inspection of the knee, and for the purpose of applying locally an ointment composed of ung. hydrarg. biniodidi and ung. sim. in the proportion of one part to three. This was used with a view to its alterative and sorbefacient action. She was given quinine and iron for ten days, a generous diet was followed throughout, and at the end of four weeks the bandage was removed and she began to walk. She improved rapidly in health, and to-day, two years after the operation, the patient in proportion to her age is the most robust one of the family. The knee remains somewhat enlarged, is painless, the leg cannot be flexed and extended to the full extent, the patient limps slightly, and is very thankful for the result. The trouble in this case could not be traced directly to an injury, neither did I accept the scrofulous theory, nor did I treat the patient accordingly.

Case II.—Lillie B., aged two years, healthy appearance, fell from a chair, striking the hip against the floor; complained of pain, and limped in walking. Three weeks after the receipt of the injury I saw her and found a well marked case of hip disease in the first stage. I improvised an apparatus which I applied to the limb; the parts being kept at rest she gradually improved, when at the end of three months it was removed and the patient was well.

Case III.—George S., aged 16, suffering from inflammation of both wrist joints; had been under the care of a physician four months, who administered the antiscrofulous remedies faithfully, no local treatment being resorted to. When he consulted me I applied the silicate of soda dressing, and made use daily over the parts of the ung. hydrarg. biniodidi of the strength already given. Internal remedies were withheld, and after some weeks' treatment the patient was discharged cured.

Case IV.—Mary C., aged 6 years, fell down stairs, bruising her body quite severely; complained of pain in left hip joint, which was persistent, walking of course difficult on account of pain in the part and the limping which supervened. When I saw her the disease was just passing into the second stage. Sayer's splint was applied, generous diet ordered, plenty of fresh air, and the patient improved slowly, when at the end of eleven months she was allowed to begin the use of the limb moderately. The recovery is by no means perfect, the nates being somewhat flattened, the limb slightly shorter than its fellow, and atrophied to some degree. The patient, nevertheless, is able to continually use the limb in walking without much inconvenience.

Case V.—Ann H., aged 8 years, while out walking slipped on an orange peel, striking her right hip on the sidewalk, which became very painful and caused her to limp. Previous to my seeing her she had been cupped and leeched without any apparent benefit. When called in, my diagnosis was hip disease, first stage. Sayer's apparatus applied, and in six months the patient's disease was so far checked that she was discharged, with a limb, however, one-eighth of an inch shorter than its fellow.

CASE VI.—Anthony M., aged 12 years, of scrofulous habit, which can be traced to the father; suffered from hip disease for three years, which came on very gradually without the patient receiving any injury. Before the trouble commenced in the hip he had received the best of care and attention and medical treatment, because he was a delicate child. When disease appeared in the hip the parents spared no pains or money to secure the best surgical treatment. Knowing the ability of those who had the case in charge before he was placed under my care, I concluded that everything proper to be done in the case was done. When I visited him I found a severe case in the third stage, pursued the usual course of treatment, but all in vain; the patient gradually sank and died.

CASE VII.—Charley S., aged 2 years, apparently healthy, but cervical glands considerably enlarged. Mother presents symptoms of scrofula. This little fellow while amusing himself fell into a pool of water; this was late in the fall; he took a bad cold which lasted but a few days, when he was again comparatively well, but the cervical glands were more enlarged than before. Three weeks after this I was sent to see him, and found him suffering from a sharp pain in right hip. I looked upon it at the time and for some days subsequently as purely neuralgic; gave the usual remedies for such cases without any good effect, until finally I began to fear something more serious, which proved after a time to be too true. As soon as the symptoms were well marked Sayer's splint was used, and the usual means of treatment in scrofulous cases strictly adhered to for eighteen months, when the patient's parents removed from the city, the child's health worse than ever, and the disease presenting the symptoms of the second stage without any perceptible amount of fluid in the joint, as revealed by the aspirator. What then was the swelling over the joint and bulging out of the trochanter due to? It may have been, as was hinted at the commencement of this article, that the head and neck of the femur became engorged with blood. The father wrote me a few days ago that the swelling was not so great, but the child's general health was no better. The decrease in the swelling may be due to the fact that the bone is breaking down and the disease passing into the third stage.

In the above cases it will be noticed that two can be traced directly to the scrofulous taint and were treated accordingly; one died and the other is still living without any hope of cure. Three cases, traced directly to a traumatic cause, made comparatively good recoveries. In the other two cases, the cause of which was obscure, a favorable termination also took place.

The number here reported is too small to draw positive conclusions, but can we not venture to assume that the proposition laid down in this paper may not be devoid of all truth, viz.: that a large number, if not the greatest proportion, of these cases can be traced to a local cause?

The rapid advancement of science in establishing new principles of treatment has not passed by this department of surgery unnoticed, when we remember the number of admirable mechanical appliances we have at our command. One in particular claims notice here. We refer to the one for which it is claimed that by its use the articular surfaces of a joint can be separated from one another. The anatomy of the parts renders this very doubtful of accomplishment. In the hip, for instance, different muscles draw the femur upwards; others draw the upper end of the bone toward the median line of the body, pressing it down in the cavity of the acetabulum. Let extension be made and the action of the first set of muscles is overcome, pulling, possibly, the head of the bone away from the upper margin of the acetabulum, but how can it overcome the action of the other muscles which draw in an opposite direction? In the knee-joint the number and strength of the ligamentous structures, both around and in the interior of the joint, seem to preclude any possibility of separating the articular surfaces. The instruments are invaluable, but whether the results obtained by their use are reached through the means claimed for them I am not prepared to admit; on the other hand, I believe that their good effects come through rest secured to the diseased part by position and fixation.

Quinia: Its Influence upon Uterine Contraction.

BY DR. F. GUNDRUM, IONIA, MICH.

I desire to draw the attention of my professional brethren to the use of quinia to stimulate uterine contraction.

I have kept track of 19 cases of inertia uteri where quinia was used to stimulate muscular power and contraction, and in all but one case I obtained splendid results. In the 18 cases the women were all delivered within 2½ hours from the time of administering of remedy, and several of them within an hour.

Having become dissatisfied with ergot several years ago as being unsafe and unreliable, I was induced to try quinia, it having been recommended by a few practitioners through periodicals. I will give you in brief a few cases.

Mrs. X., Stanton, Mich. Dr. McL. in attendance; labor began at 3 A. M. I arrived at 11 A. M. Patient well developed; age, 33; first child; full term. Vagina in normal condition; os dilated to the size of a trade dollar, or a trifle more, thick, soft, cool, and covered with mucus, and pliable. All that seemed to be required was the *vis a tergo*. With consent of Dr. McL., I gave 15 grains of quinine, and in 35 minutes by the watch the uterine contractions became harder and longer, and in one hour and a half we had delivered child and placenta.

SECOND CASE.—Mrs. D., aged 40; tenth child. Patient rather feeble and worn out from hard work. Labor commenced at 10 A. M. Was not called till 4 P. M. Os dilated to three to three and a half inches in diameter, and it seemed as though the head would slip through anyhow. Stimulation and friction over the uterus failed to awaken anything new, she having had feeble uterine contractions since morning. Not being in a hurry myself, any more than the uterine contraction, and as the offspring was running no risk, I concluded to give nature a full chance. After waiting four hours, I concluded to try 15 grains of quinia. This was given at 8 P. M. In twenty-five minutes uterine contractions became more forcible and prolonged, and in one hour and ten minutes the child was delivered.

I have given quinia, where ergot had failed, with the best success; but my last case illustrates this very forcibly.

I was called to Mrs. N. at 1 P. M. She had been in labor for seventeen hours. Examination revealed a roomy pelvis; os dilated to a size sufficient to introduce two fingers; membranes entire; pains of moderate intensity, and of that miserable and unbearable kind that we usually get while the cervix is dilating. I assisted some in the dilating process until it was two and a half inches in diameter, and quite a wedge of fluid protruded through the os into the vagina, but uterine contraction remained feeble. The woman being rather large, I suspected there might be too much amniotic fluid, and so I ruptured the membranes and let off the fluid. Pains improved a little, but soon lapsed back into the old condition. Friction over uterus, with stimulating drinks, etc., failed to improve things any. Everything was in the best condition, and it seemed that if we had a half hour's good uterine contraction, our tedious task would be ended.

I had two drachms of Squibbs' ergot with me, and, thinking I might be unduly prejudiced against this by some much-lauded oxytocic, and if ever there was a good case for ergot this was one, I gave one drachm, and in one hour and a half gave the other, with scarcely any result. We got, for about an hour, a little better uterine effort, but not enough to bring about any result. I waited two hours after the last administration. In the mean time I ordered some light nourishment, which was relished; thinking this would more certainly insure absorption of the ergot, but it was of no use. I was utterly disappointed. I now asked permission to apply forceps, but was bitterly opposed. I sent the husband of patient to town after fifteen grains of quinia, which took up one hour and a half. I was much worried for the life of the child. I administered the quinia, and in forty minutes thereafter good uterine contraction began, and in forty-five minutes from that time the child was still-born, and all efforts failed to rescuscitate it. The child was flaccid and poorly nourished, with a very small cord and placenta, but was alive before the administration of ergot. Certainly uterine contraction did not hurt this child. May I ask, did ergot not have something to do with the result? We still have high authorities and teachers who recommend this agent, and others condemning it. What shall we do? I say, let ergot alone as an oxytocic; at least never give it unless you have your stethoscope to keep track of the fetal heart, and a pair of obstetric forceps to deliver the child at any moment.

Quinia can do nothing but good, and I advise it in preference to ergot every time. Use your quinia and forceps, and leave ergot to be given just before delivery is to be completed to insure post-partum uterine contraction. I hope this may induce others to try quinia as an oxytocic, as on inquiry among practitioners in this and other sections of the State I find it is scarcely ever used.

Hemorrhoids.

BY DR. J. HENRY CARSTENS, DETROIT, MICH.

Hemorrhoids or piles may be defined as a morbid condition of the blood-vessels of the submucous and subcutaneous tissues of the anus and lower part of the rectum. Piles are divided into *open* or *blind* (if they bleed or not); if situated below or above the verge of the anus, into *external* or *internal* piles.

ETIOLOGY.

The very tortuous course of the hemorrhoidal veins, with the absence of valves in most of them, constitutes a predisposing cause for this disease. Although every possible cause of retarded circulation has been mentioned, such as tumors, congestion of the liver, pregnancy, constipation, etc., still these will not explain every case. Now, it is well known that children do not suffer from piles, women but seldom; men are the principal sufferers, especially those whose business requires them to sit a great deal and who are habitually constipated. Virchow has probably given the most correct explanation; he thinks that irritation of the mucous membrane by stagnating, decomposing masses, results in catarrh and swelling of the mucous membrane, and that by repetition the enlargement of the blood-vessels of the parts remain so, and even, finally, get still larger and become hemorrhoids. The symptoms as they develop seem to confirm this view.

ANATOMICAL CHANGES.

A pile is composed of the varicosed portions of the hemorrhoidal plexus; it can generally, by pressure, be emptied of blood; in some cases, however, a plastic deposit has taken place in the cellular tissue, and the pile is honey-comed; sometimes a small artery enters the pile, which may produce severe hemorrhage if the pile is cut; if inflammation has taken place in a pile its vascularity is lost, and it is of a polypoid character. The congestion of the mucous membrane spoken of before will, by straining and difficulty in defecation, increase, until an eversion of the mucous membrane takes place. In the early stage of the disease the protrusion will be slight, but it will increase until more and more protrudes, the submucous cellular tissue becomes relaxed, and finally prolapsus ani results.

SYMPTOMS.

Heat, itching and smarting around the anus are some of the first symptoms; a disagreeable sensation, with a glairy discharge, the latter sometimes streaked with blood, will first attract the patient's attention. As the disease advances, hemorrhage, sometimes very profuse, severe pain in the parts or the back and thighs, take place; tenesmus, colic, the protrusion of the mucous membrane produce severe bearing down pain. Sympathetic disturbances take place, such as irritability of the testicles or ovaries, irritation at neck of bladder, frequent urination, dyspepsia, etc.; the patient becomes emaciated, with a peculiarly anxious, careworn look. These latter symptoms may mask the original trouble and lead to a wrong diagnosis.

DIFFERENTIAL DIAGNOSIS.

It is of the utmost importance that the physician carefully examine the patient, as frequently persons say they have piles when in reality it is an entirely different disease. Polypi, fissures, fistulæ, ulceration and cancer of the rectum must be carefully excluded, although frequently two of these diseases will make their appearance at the same time, especially piles and fissure.

TREATMENT.

This must be considered under two heads: First, remove predisposing cause. Second, remove the disease.

1st. If the cause that produces the hemorrhoids is found it should be removed. Persons whose habits of life predispose them to piles should be instructed to keep their bowels regular by a judicious regulation of the diet. When medicines are needed, I am in the habit of prescribing a pill composed of one-fourth grain each of aloes, podophyllin and extract of belladonna, and one-twentieth grain of strychnine; one pill to be taken at night when needed. The use of tannin suppositories is also beneficial in the earlier stages when only a slight enlargement of the veins exists. In some cases by this means contraction of the blood-vessels and radical cure for a time has been brought about. If, however, the piles are well formed when we are called upon to treat them, only one means of cure exists, viz., surgical interference. Salves lotions, etc., give but temporary relief; we should urge our patient to submit to some surgical operation.

2. Removal of piles is accomplished in various ways. External piles can be simply snipped off with the scissors, as hemorrhage need not be feared. Internal piles can be cauterized by applying fuming nitric acid and returning them into the bowel; a slough forms, which is cast off in a few days.

Lately a plan has received very favorable attention and extensive trial; it is to inject into the piles carbolic acid diluted more or less (generally 1 part of acid to 3 of glycerine). The piles are each injected with 3 to 10 drops of the acid and returned into the bowel; sloughing takes place in a few days, a cure being effected by destruction of the vessels.

These different procedures can be borne without the use of chloroform, and where the disease is not too far advanced will be sufficient to effect a cure. In chronic cases and those where prolapsus exixts other means must be employed—ligation and the actual cautery are here indicated. Mode of procedure: The bowels should be emptied by a cathartic and washed out thoroughly with a syringe; the patient should be put under the influence of an anæsthetic, as the pain and resulting contraction of the sphincter interferes with the operation; the piles should be pulled down; in a woman this is easy, by putting a finger in the vagina, but in man considerable difficulty is sometimes experienced; I saw in some German work a plan recommended that seemed very good—it is to introduce into the rectum a good-sized sponge to which a string is attached; the sponge can be introduced by pressing it together; it expands when in the rectum, and by drawing on the string the piles are pulled out before the sponge; when the piles are all out the small ones are ligated simply, silk, cat-gut or rubber being used. The ligature must be drawn tight, so that the vessels are entirely closed. The larger flat or oblong piles should be transfixed by a threaded needle and tied on each side; sometimes the mucous membrane around the base of the pile is cut through to the submucous tissue to prevent the ligature from slipping. The ligatures are cut short and the whole mass of piles returned to the bowel, the ligated parts slough off, and a permanent cure is generally effected in a week or ten days.

The relaxation of the sphincter ani spoken of before is one of the greatest difficulties to overcome, even if the piles are obliterated. Probably the most success can be effected by the plan lately proposed by Voillemer. By the actual or galvano-cautery linear cauterizations are produced in two, three or four places, the resulting cicatrix producing such a contraction that prolapsus does not take place any more.

Note on the Insertion of the Placenta over the os Uteri.

DR. J. L. VALADE, NEWPORT, MICH.

Mrs. J. D. became pregnant about the first of April, 1877; was taken with metrorrhagia about the fifth of August.

Being called forthwith to see her, I ordered common astringents with the horizontal position, and the hemorrhage ceased readily.

Gestation continued its march regularly until about the first of November, then uterine hemorrhage came on again, but was speedily arrested as before. Then for a time, although no blood made its appearance, the patient would occasionally complain of uterine pains. On the first of January following she was taken with fearful flowing, coming suddenly, with redoubled contractile pains. On my arrival I told her I thought she would be delivered shortly. However, her pallor and cold, clammy sweats, with small, filiform pulse, indicated that the life of my patient was in danger.

At the first examination I found that dilatation had sufficiently taken place, but instead of the head or other parts of the fetus, I met with a soft, spongy body, with coagulum, or large clots of blood, etc.

I soon concluded that I had before me a case of placenta previa. To relieve my patient from her danger, two plans occurred to me, viz.: detachment, or perforation of the placenta. Seeing the extreme weakness of my patient, very little hope was left for me to save her life. However, something had to be promptly done. The pains, which had been violent, were now totally stopped. After giving her a full dose of sec. cor., I introduced my hand, in cone-like manner, into the womb, perforating the placenta about one-third from its posterior edge. Then I sought the feet, which I had some trouble in finding, after which I had no trouble in terminating the final delivery. The mother's life was saved, but the child was lost.

Now I asked myself whether, by detaching the placenta, I could have saved the child's life. It is possible, but I believe I would have lost the mother, for the following reasons: First, the detachment necessarily takes more time than the perforation. Secondly, the portion of the placenta forcibly detached would certainly furnish more blood, and diminish the chances of success. Therefore, in a case of the kind where the quantity of blood lost would be moderate and manageable, probably the detachment would be preferable to perforation. However, I submit the question to my readers of THE LANCET.

The *Sanitarian*, April, 1878, strongly indorses the Abbott improved asphalt pavement, as laid in the city of Brooklyn, N. Y. It says that this pavement has practically so proved its superiority as to have completely supplanted all other pavements, and won the hearty indorsement of most intelligent citizens and largest tax payers. We are glad to learn this, because *good* asphalt pavements are the best of all; *bad* ones the worst of all.

Reports of Societies.

Transactions of the Northeastern District Medical Society.

The annual meeting was held at Utica, Mich., January 31, 1878.

Owing to the absence of the President and Vice-President, Dr. F. M. Wilcox, of Rochester, was called to the chair.

The following members were present, viz.: Dr. A. Yates, of Washington, Secretary; Dr. F. M. Wilcox, of Rochester; Drs. Brownell and Knight, of Utica; Drs. A. R. and H. J. Reynolds, of Orion; Dr. James Yates, of Roseville.

Prof. L. Connor, of the Detroit Medical College, was present, and on motion was unanimously elected an honorary member of the society.

Dr. Brownell then proposed for membership George G. Roberson, M. D., of Utica; whereupon the following Committee on Credentials was appointed, viz.: Drs. Brownell, H. J. Reynolds and Albert Yates, who reported favorably, and on motion he was unanimously elected to membership.

The financial report of the treasurer was then read, accepted and adopted.

The minutes and discussion of the last meeting were then read and approved.

On motion, the election of officers was postponed until the afternoon session.

Reports of cases then followed.

Dr. Yates, of Washington, reported an interesting case of puerperal convulsions, where, after all the usual remedies, such as chloroform, free bleeding, bromide of potassium, etc., had been tried without effect, upon the administration of five drop doses of Tilden's fluid extract of veratrum viride the convulsions ceased, and the primiparous patient made a good recovery.

Dr. Brownell reported an interesting case of puerperal mania.

Dr. Connor called attention to the physiological action of veratrum viride, and showed that in Dr. Yates' case the use of this drug was entirely rational.

The treatment of wounds by Lister's method was then discussed ith considerable interest.

AFTERNOON SESSION.

Dr. A. R. Reynolds, of Orion, then read a paper on Albuminuria, with a report of three cases of the disease, and illustrating his paper with pathological specimens. (This paper can be found by referring to page 173, DETROIT LANCET.)

A vote of thanks was tendered the doctor for his valuable paper, and the discussion of the day, viz., "Bright's Disease of the Kidneys; its Pathology, Diagnosis and Treatment," then opened.

Dr. Albert Yates—I have had no experience with the chronic form of the disease; have had a number of cases of albuminuria following scarlatina, and some cases of the acute form as the result of colds, etc., but by applying dry cups over the kidneys and giving one or two purgatives and some powders of calomel and nitrate of potash, I have succeeded in re-establishing the functions of the skin, and thereby relieving the overburdened kidneys. Shall say nothing with regard to the pathology of chronic Bright's disease, as practically I have had nothing to do with it.

Dr. H. J. Reynolds—Will say nothing regarding the pathology or diagnosis, but of the treatment would say that I am not in favor of using drastic purgatives or of diuretics, but would rather tap the patient to relieve him than try to relieve the accumulation otherwise; would give albuminous foods to supply the waste. With regard to medication in the chronic form, but little can be done.

Dr. Yates, of Roseville, reported a case of acute albuminuria following scarlatina. He said, when first called to see patient, he found him œdematous, hands and feet cold; gave simply purgatives and diuretics, and the case terminated favorably. Was called to see a case of chronic albuminuria. Found general anasarca, heart sounds and form normal, liver tender, with marked tenderness over the region of the right kidney. Examined the urine, and found it bloody and highly albuminous. (The test used was heat and nitric acid.) My patient passed but a small quantity of urine, and slept nearly all the time. I gave him a purgative of calomel and jalap, then gave diuretics, which acted nicely in every respect. Gave iron, cod-liver oil, in fact a regular tonic treatment, under which my patient improved, and is now well.

Dr. Knight said, I have had but little practice in the disease, and wish to have less. I do not regard general anasarca such as often follows scarlet fever as cases of acute albuminuria (although such cases may sometimes arise), but rather the result of locked-up secretions and impairment of the secretory functions, and such cases rapidly recover under the use of purgatives and something to stimulate the secretory functions. Have had only one case of chronic albuminuria, and do not wish any more.

Dr. Brownell—Have had but little practical experience in the disease under discussion, having had but two cases. I would agree with the ideas advanced in the paper just read. With regard to the anasarca following scarlet fever, I believe it to be the result of acute albuminuria, and I regard it as a grave difficulty, having lost quite a number of such cases. In treatment would dry-cup over the kidneys, and would follow it by counter-irritants, and would give such laxatives as Rochelle salts, cream of tartar, and would also give iron and quinine.

Dr. Roberson said, having never had any such cases, can say but little of the disease. I saw one case treated in the hospital at Detroit. They did not give hydragogue cathartics, but gave pills of digitalis and squills. Don't know how the case terminated, as I did not see the end of it.

Dr. Connor said the disease was more common in the eastern States than here. Cases of this disease but seldom occur here, although occasional cases are met with in the city. While the disease is a very grave one, it is not safe for us to say that because a patient is afflicted with it he must necessarily die within a short time. I have known a patient to have this disease and to live fifteen years after the diagnosis was unmistakable. He was medicated chiefly with tincture of iron, and when examined *post-mortem*, the kidneys were found to be contracted to an extreme degree. By the way, tincture of iron in good large doses appears to affect cases of Bright's disease more favorably than anything else. The disease is not confined to the lower classes, but occurs among all grades of society. It is a mooted point, which of the two is the primary disease, that of the heart or that of the kidneys. All of the cases, sooner or later, die as certainly as do cases of phthisis. I have sometimes thought that if our cases of chronic Bright's disease were transported to a warmer climate they would be positively benefited, as they are almost invariably better during warm than cold weather. We are aware that during the warm season perspiration carries off large quantities of the fluid of the body, which would under other circumstances necessarily pass through the kidneys. Thus their work of elimination is by that means materially lessened, while they are strengthened in consequence of the rest. Our patients, too, in such a climate are very much less liable to take cold. It is believed that disordered digestion predisposes towards this disease, and in view of all the facts it seems to me that the idea contains a great deal of truth; for instance, the person who takes from four to six ounces of alcohol or its equivalent daily, cannot dispose of as much food properly as the person who does not use such. And this we do know, that persons using large quantities of animal food and alcoholic stimulants are more prone to this disease than those who eat and drink with moderation, and degenerative changes are very much more apt to take place in such persons. In this disease the eyesight of the patient is often diminished, in consequence of degenerative changes in the choroid and retina often becoming indurated and thickened by fatty and other deposits, and probably the degenerative changes in the kidneys are a result of the same cause. Have thought that our mode of giving large quantities of albuminous foods and beef tea to supply the loss of albumen is not wise, nor results favorably to our patients. I would only give sufficient to supply the demands of nature. When the kidneys are actively engaged, working probably to their utmost capacity in throwing off a large quantity of poisonous products, as after such a disease as scarlet fever, and the patient is exposed to cold, the kidneys can do no more than they have done without help, and if the physician is there to stimulate them to renewed action or to take off some of the load, all goes well, but if he is not, they become completely overburdened and consequently overpowered, and then fail to do anything properly.

With regard to convulsions in this disease, they appear to be caused by poison in the blood, whether it is uræmic or otherwise.

Dr. A. R. Reynolds said he thought that convulsions were very rare in chronic albuminuria. I do not believe in diuretics in acute albuminuria, but would rather give drastic cathartics, as the epithelial lining is almost in every instance destroyed in those cases of dropsy following scarlatina, and I look upon those cases as real cases of acute albuminuria or acute Bright's disease.

Dr. Wilcox said: It demands our close attention on account of its insidious approach and the fatality of the disease. Other troubles of a dropsical nature arise, such as hydropericardium, hydrothorax, etc., and are often treated as independent and uncomplicated diseases, while they are more often the outgrowth of chronic Bright's disease. I agree with Dr. Connor that our patients had better go to a warm climate as soon as they know themselves to be affected with the disease. Have seen quite a number of cases in the advanced stages of the disease, where the disease of the heart and lungs was supposed to be the only disease present, while I believe that they were there as the result of chronic Bright's disease. I believe that disease of the heart in these cases arises from being fed by impure blood, its vitality being thereby impaired; other visceral troubles, too, often arising from the same cause. According to my observation, those cases of effusion in the limbs are harder to overcome than those cases of effusion occurring elsewhere. The usual duration of the disease is about two years. In treatment I would do all I could to build up my patient, giving such as iron, quinine, cod liver oil, etc. I would not give diuretics in this disease. Dr. E. M. Moore, of Rochester, N. Y., gives with good effect saline cathartics sufficient to move the bowels from two to four times daily, thereby securing rest to the kidneys and allowing them to recuperate by lessening their labor.

Dr. Roberson then read the notes of a very interesting case of inguinal hernia which terminated fatally.

The relative merits of sulphate of quinine and sulphate of cinchonidia were then discussed, with a great preponderance of evidence in favor of quinine.

Dr. A. R. Reynolds then gave a report of some cases of diphtheria which proved fatal, one of which was seized with diarrhea, cystitis, etc., causing him to believe that the membrane had formed on all the mucous surfaces. In treatment had given chlorate of potash, hydrate of chloral, chlorine water, etc., with no effect. I do not believe that chlorate of potash is either a specific as is reported, or even a good prophylactic. I gave quinine in good doses every three hours; for paralysis I used iron, quinine and nux vomica.

Dr. A. Yates reported an interesting case of diphtheria, where all the mucous surfaces were covered with the diphtheritic membrane, and an eruption appeared on the hands, feet, arms and legs, so closely resembling that of small-pox as to puzzle the doctor and also the consulting physician, Dr. A. R. Stone, of Almont. The patient made a good recovery, without proving to have small-pox.

The following were then elected as officers for the ensuing year, viz.:

President—Dr. F. M. Wilcox, of Rochester.

Vice-President—Dr. Hugh McColl, of Lapeer.

Secretary and Treasurer—Dr. Albert Yates, of Washington.

Resolved, That the next meeting of this society be held next June at Orion.

Resolved, That the topic for discussion at our next meeting be "Pneumonia: its pathology, diagnosis and treatment.

H. J. Reynolds, M. D., kindly consented to prepare on the subject to open the discussion.

F. M. WILCOX, M. D., *President pro tem.*
ALBERT YATES, M. D., *Secretary.*

Michigan State Board of Health.

The regular annual meeting of this board was held at Lansing, Tuesday, April 9, 1878, the following members being present: Dr. R. C. Kedzie, President; Hon. Leroy Parker, Rev. D. C. Jacokes and Henry B. Baker, Secretary.

It being the annual meeting, President Kedzie presented his annual address, entitled "The Work of the State Board of

Health," in which he gave an account of the past work of the board and outlined its work for the immediate future.

Among the many duties which the board had performed since its organization, about the first effort was for the establishment of well organized and effective boards of health in every township, city and village throughout the State, securing the appointment of a health officer by every board of health, and then bringing the State Board of Health into communication and active coöperation with all these local boards of health, thus gaining two important objects: (1) having an effective channel for imparting information; (2) having organized bodies through which the statistics in regard to public health could be gathered from all parts of the State. Besides this, the board had secured the assistance of many physicians throughout the State, receiving from them many valuable reports, communications, and replies to circulars regarding the cause and progress of various diseases. He referred to the general plan of work within the board by distributing the duties to regular committees on different subjects, and claimed that every State board of health subsequently organized had approved of the plan by adopting it. In speaking of the efforts to impart information and gather statistics bearing on the public health, he said the results were most gratifying. Not only sanitarians, but the people at large are grasping that very important and revolutionary idea, the possibility of the prevention of disease and death; that many diseases may be prevented altogether, or that when they do appear they may as certainly be stamped out as a forest fire may be extinguished, or they may be walled in like an inundation. A people who fully grasp the idea that half of their sickness and death may be avoided, as truly and really as they may prevent the destruction of their crops by cattle by proper fencing, have taken a long stride in State medicine. This fact ought not to be lost sight of, that each person is in the broadest and fullest sense healthy and safe only as every person about him is healthy and safe. In outlining the future work of the board, the doctor said that the law now says that the board shall from time to time recommend standard works on hygiene to be used as text-books in our common schools. He recommended that this subject be referred to a committee to report to the board at an early day, either by recommending standard works on hygiene, or by showing that no proper books have yet been written. He recommended the early publication of the material collected by the board, such as meteorological data and reports of diseases, etc.

VITAL STATISTICS.

He recognized the fact that public health measures have their foundation on vital statistics, and it becomes therefore a matter of necessity as well as of law that we should study these records in order to promote the health and safety of the people. The first and indispensable quality of statistics is accuracy. He recommended that the committee on legislation and the secretary of the board be appointed a committee to prepare a bill which shall embody some changes which seem to be required in the law, and bring the subject before the next legislature.

DISINFECTION.

Inasmuch as the methods for disinfection are similar for different diseases, he recommended that a general circular on the use of disinfectants be prepared and issued, so that whenever the board wishes to issue instructions for the prevention of any self-propagating disease, such a circular will save repetition.

PRESERVATION AND PREPARATION OF FOOD.

In his opinion the question of food and its preparation for human use has more vital relations to the public health and welfare than all other physical causes combined. If our people can be taught to preserve and prepare their food so as to secure the best dietetic results, preventive medicine will have won a grand victory. It could then no longer be said that "our appropriate monument would be a frying-pan, and our epitaph saleratus."

SANITARY SURVEY OF THE STATE.

He suggested that this work should be done early in order to prevent the destruction of property in mills, etc., which may depend on dams which cause the overflow of surrounding country. The subject of the pollution of streams by sewage is a question of great importance, and one that should be settled before sewer systems become practically beyond control, on account of the large outlay of money to effect a change. When Detroit first emptied its sewage into the river it was claimed that it was not possible to pollute such a mass of water, but since the country has become thickly settled above, the water supply of Detroit is already endangered, and fears are expressed that as the population above Detroit along the river becomes greatly increased the water of Detroit river will become unfit for domestic use. He referred to other cities, and remarked that a similar trouble may yet vex the people of Lansing.

Such evils can only be averted by early combined effort. A sanitary survey will cost money, but nothing is so economical as health, and nothing so wasteful as sickness. A true economy will freely expend money to secure health.

SANITARY CONVENTIONS.

He suggested the holding of sanitary conventions in different parts of the State to discuss sanitary subjects, and to bring together dealers in sanitary appliances, sanitary experts, and the people generally who need instruction in sanitary work. He hoped to see the day when these questions which lay hold on life shall be as freely discussed by the laity as they now are by experts in sanitary science. If such conventions were held the secular press would disseminate widely the truths brought out. The State Board of Health needs recruits to win victories in sanitary science in every hamlet in the State, but no recruits from other quarters can equal in widespread influence the secular press. In carrying out any sanitary reform we need and must have the aid of the women of our State, for "woman makes the home." The work of sanitary conventions must be confined to sanitary subjects. All questions of party politics, donominational theology, and of curative medicine, must be rigidly excluded.

In closing, he stated that the office of the board is not to convulse the community with lightning shocks, but to let in the sunlight of truth, which, silent as the footfalls of time, but resistless as destiny, shall mold and fashion the very conditions of life in our State.

The recommendations made by the president were separately considered, and committees appointed to carry them into effect.

DRAINAGE LAWS.

Leroy Parker reported on the drainage of lands in adjoining townships, and suggested that the law might be so amended as to provide for an appeal to the Circuit Court in case of dispute. Dr. Baker suggested that on questions of drainage to preserve the public health, the local health authorities should have the deciding power. Mr. Parker was asked to further consider the subject with a view to an effort for an amendment of the law.

WOODEN SIDEWALKS, ETC.

Dr. Hitchcock sent a report on decaying wooden sidewalks, pavements, etc., which was read by the secretary. It embodies replies from the regular correspondents of the board in various parts of the State. The general idea seemed to be that no sickness had been traced directly to these causes except in two instances. The substance of these reports will be published in the annual report.

CITY AND VILLAGE HEALTH BOARDS.

Leroy Parker reported the draft of a bill designed to secure reports of communicable diseases of citizens of cities and villages to the local boards of health as is now required by law in townships. He was requested to act for the board in bringing the subject to the attention of the next Legislature.

TOMATOES AND CANCER.

Dr. Hitchcock made a report on this subject, which had been referred to him at a previous meeting. He based his conclusions on replies of correspondents of the board throughout the State. There seemed to be no evidence showing that tomatoes cause cancer; and the source of the notion was traced to a quack professor in an institution that sold diplomas in Philadelphia, who claimed to have found cancer cells in the tomato.

Dr. Kedzie reported an analysis of water received from Climax, where cases of sickness had resulted from its use. The water was loaded with organic matter. This was probably due to slops thrown near the well.

QUARTERLY REPORT OF THE SECRETARY.

Dr. Baker made a report of the work done in the office during the quarter just ended. Blanks and circulars of instruction for annual reports of health officers and clerks of local boards of health had been sent out, and 1,189 documents of this kind had been received, examined and filed. A circular to correspondents asking thirty-four questions in regard to diseases during the year 1877 had been planned and sent out to all correspondents of the board, and thirty-two replies had been received. A circular to supervisors and other officers of townships relative to notices of communicable diseases had been prepared, approved, 20,000 copies printed, and about 4,000 copies distributed. Posters on the same subject had been sent to every township in the State, with a request that they be put up in a conspicuous place. A circular and blank return for name and post-office address of health officers had been prepared and sent to every supervisor in the State. A similar circular was also sent to the mayor and president of every city and village in the State.

The regular quarterly distribution of postal blanks for weekly reports of diseases had been made; and also record books sent out for the use of observers who make the reports of diseases. In order to make this distribution 1,800 postal blanks were printed, and 300 blank books were printed and bound. Such weekly reports for the year ending with September, 1877, have been compiled and are ready to be printed. Letters on diphtheria from thirty-nine correspondents, and on scarlet fever from thirty-one correspondents, have been edited for publication in the annual report. Editorial work has also been done on vital statistics of Michigan; also on the replies to the circular on prevailing diseases in 1876. A compilation of meteorological data for 1877 has been made.

Communications were received from Dr. Worsfold, of Jackson, in relation to preventing deaths at railroad stations from catching feet in "frogs;" from Dr. Beech, of Coldwater, concerning the filthy condition of privies at railroad stations; from Dr. Rouse on deaths in Detroit; and from Dr. Chase, of Otsego, on opium eating.

The committee on legislation was instructed to secure an amendment to the law in reference to vaccination in townships, villages and cities.

Dr. Kedzie was asked to attend the meeting of the American Social Science Association at Cincinnati from May 18 to 24; and Dr. Baker was asked to attend the coming meeting of the American Public Health Association.

Bills were audited to the amount of $1,323.74.

The time for the next regular meeting is July 9, 1878.

Detroit Academy of Medicine.

MARCH 26, 1878.

The President, Dr. Connor, in the chair.

Dr. Geo. P. Andrews read a paper on "The earlier stages of phthisis," which gave the result of his observations on the bodily conditions, symptoms and physical signs of this period of the disease.

In the discussion which followed, Dr. Cleland said that he regarded elevation of temperature without traceable cause as one of the surest signs in the early stage of the malady. It led him always to inquire very closely into the patient's history, and to make a careful physical examination. The physical sign that he most frequently found was "puerile respiration," and quickened respiration on slight exertion. The pulse, he said, was sometimes increased in frequency and sometimes not.

Dr. Carstens thought that a prolonged expiratory murmur was the surest of all the signs of early phthisis.

Dr. Noyes—Years before we had the thermometer to aid us in diagnosis the sign of greatest value was a prolonged, roughened and jerking expiratory murmur, especially, if the slightest symptoms indicative of the disease were present, as night sweats, slight dullness on percussion, etc.

Dr. Johnson—There is a sign which in doubtful cases I always look for, *i. e.*, a disturbance of the circulation under the nails.

There is a peculiar whiteness of the matrix generally present, which I believe indicates a low state of vitality—anæmia. Bulging of the nails comes later in the disease.

Dr. Andrews remarked that we were in need of a more thorough knowledge of the pre-phthisical stage. He had found as a rule that physical examinations were extremely unsatisfactory in the early stages.

Dr. Connor—My impression is that in the pre-phthisical stage, before change occurs in any organ of the body, anæmia exists. There are several varieties of this, one of which occurs in pale, scrofulous persons, and another in persons of full habit, but in either case the blood is poor in quality and charged with effete materials. This soon leads to blood poisoning and the fully developed form of the disease. According to his experience a dyspepsia which could not be traced to any particular cause was one of the first and most valuable symptoms of the pre-phthisical stage.

Dr. Johnson thought that it would be difficult to discriminate such cases.

Dr. Cleland had seen cases in which enormous quantities of food were eaten each day, and well digested, but still there was progressive emaciation and the usual termination of the disease.

Dr. Carstens—Is not emaciation one of the first symptoms?

Dr. Cleland remarked that if body weight increased, we might be sure that the disease was arrested for the time being at least.

Dr. Johnson asked if it were not true that the physical signs were often present before any change in body weight had been noticed?

Dr. Andrews thought there was a large class of such cases.

Dr. Connor said that it was a noticeable fact that in phthisis of the upper portion of the left lung the appetite for fatty food was lost much sooner than when the same part of the right lung was affected. The explanation offered was that the swelling, effusion, etc., of the parts, pressed on the thoracic duct at or near its entrance into the vein, interfering with the discharge through it of the emulsified fats.

PREVAILING DISEASES.

From the discussion which followed under this head, the fact was made prominent that we have now prevailing in our midst a mild and very general epidemic characterized mainly by intestinal and bronchial catarrhs, being in exceptional instances severe enough to receive the name of dysentery and suffocative catarrh. Neuralgia, either facial or intercostal, has complicated many of these cases. The cause was thought to be malaria by most of the members, and hence quinine has been chiefly used in the treatment, with or without anodynes as the cases required.

REPORT OF CASES, ETC.

Dr. Carstens—On Sunday I was called to a lady who was suffering from severe pains in the left side, groin and hip. Her temperature was 101½° F., and pulse 120. Opium and quinine were prescribed. Monday she was no better, and in addition she was delirious. This morning her pulse was 160 or 170. She was sweating profusely, and perfectly conscious. During the night hemorrhagic spots made their appearance in various parts of the body. Stimulants were freely given, but she rapidly failed, and died this afternoon. I cannot help regarding this case as one of severe malarial poisoning.

Dr. Noyes remarked that a number of very interesting eye cases had the past week come under his observation. As it was already late, he would at present mention only two or three of them.

Mrs. E. R., æt. 24, from Grand Rapids, general health good, consulted him on account of binocular loss of sight, which dated from last Christmas. There was now only quantitative perception of light. Ophthalmoscopic examination of fundus oculi was easily made by erect linage. The dioptric media being clear, and the refraction having become considerably hypermetropic, a marked change, it was found, had taken place in the optic disc. The appearance it presented was almost exactly that described in Plate VI, Fig. 13, in Wells' work on the eye. The disc had taken on an opaque, reddish-gray tint. The swelling of optic nerve from effusion was marked, giving to it a striated "woolly" appearance. The choked condition of papilla optica had so diminished in caliber the arteries as to render them hardly distinguishable, while the veins were greatly dilated, dipping into the infiltration. This case, the doctor remarked, resembled very closely in its objective symptoms that of Dr. H., of Wall Lake, which he was called to see two years ago the present month. In this, as in that, he was obliged to give a forlorn prognosis. The optic neuritis will, without doubt, end sooner or later in complete atrophy of the same.

The next case, Mrs. A. B., æt. 37, large and fleshy, from Ovid, was brought to him by Dr. Brown. She has for the last five years suffered from frequent attacks of severe headache, located especially in back part and extending to the forehead. Last April she was attacked very suddenly with hemiplegia, from which she has now apparently recovered. In this case there was also only quantitative perception of light; but the sight sometimes suddenly returned for a short time, when she could see tolerably well. Her pupils were widely dilated, but on going into the open air he noticed they contracted down to usual size. The optic disc presented on examination an exceedingly blanched or white appearance, with well defined outline, but seeming of increased size. It looked not unlike Plate VI, Fig. 12, in Wells' work before referred to. The arteries were reduced to a thread-like appearance, while the veins were greatly distended and prominent. The cause of these objective symptoms is, without doubt, inter-cranial. With regard to the prognosis, while it looks most unpromising, it should, he thought, be given with some reservation.

J. D. MUNSON, M. D., *Secretary.*

APPLICATION OF PLASTER JACKET TO SPINAL CURVATURES.—Prof. Lewis A. Sayre (*Medical and Surgical Reporter*, January 5, 1878) has found that after the plaster jacket has been applied, if he applies a heated iron he makes the plaster set more rapidly and obtains a better finish for his work. He has consequently had an iron roller made that he uses for ironing down his plaster jacket.

Abstracts from Exchanges.

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Practice of Medicine.

PROTRACTED SYNCOPE UNDER CHLOROFORM.—(*Medical Times and Gazette—Canada Medical and Surgical Journal*, March, 1878.)—J. C., aged fifty-seven, suffering from disorganization of the metatarso-phalangeal joint of the great toe of the left foot. History of three distinct attacks of gout. Chloroform was being administered for the operation, when the patient soon began to struggle, not strongly, but in a spasmodic, tremulous way. More chloroform was administered and the patient became quiet. As he was being moved along the operating-table, the house-surgeon noticed that respiration had ceased. The patient was pulled back along the table, his head depressed and artificial respiration resorted to. The femorals of both sides had ceased to beat. The tongue was drawn forward, artificial respiration, twenty-eight to the minute, was maintained, Mr. Bryant assisting the Sylvester method by intermittent pressure on the thorax with the palms of both hands. No pulse at the femorals being apparent four mintues from the commencement of artificial respiration, four drops of nitrite of amyl, from a capsule freshly broken on lint, was applied to the patient's nose. The color of the face improved almost simultaneously and the pulsation in the femoral returned, and the patient came around very quickly. The case is an instructive one, as there was no doubt in the minds of all present, that but for the means employed the man would have died. The chloroform, as afterwards tested, was a very pure article.

Sylvester's method of artificial respiration is the best; but grasp the arm just below the elbow, instead of at the wrist and keep the respirations at twenty-five per minute; pull forward the tongue, keep the lower jaw forward, and raise the legs at right angles to the body. Use nitrite of amyl upon a handkerchief, and, if the patient does not come around in six or seven minutes, perform tracheotomy or laryngotomy, as the air passing direct through the tube is a stronger stimulant than when passing through the normal passages. Put a piece of ice in the rectum. If the heart still continues beatless, puncture the pericardium, so as to reach the apex of the heart with an electric needle. This being unsuccessful the substance may be pierced. In no case ought artificial respiration to be relaxed, until all the above measures have been tried.

ERYSIPELAS.—(*L' Union Medicale*, Feb. 19, 1878.)—M. Siredey, of the lying-in wards of Lariboisiere Hospital, Paris, reports an epidemic of erysipelas among the newly-born infants under his charge, which caused the death of a number of the children. As the doctor prides himself upon the sanitary condition and arrangements of his department, and with some justice, since his statistics report very nearly as good results as those of city practice, he felt not a little chagrined in seeing the disease attacking every new-comer. After some searching for a cause, it was finally discovered that the source of evil was a jar of rancid lard, which an ignorant nurse used upon the babies to prevent erythema. Removal of the jar was equivalent to banishing the disease, for not another case of erysipelas appeared.

RENAL FORM OF TYPHOID FEVER.—(*L' Union Medicale*, March 7, 1878.)—From a *resume* of the work of Charles Amat upon this subject, the following conclusions are presented: Although typhoid fever must be regarded as a morbid entity, still, from a clinical stand-point, we must acknowledge that its manifestations are presented in numerous and various forms:

1. The typhoid process attacks the kidneys as well as the other organs (brain, spinal cord, lungs); hence, the necessity exists of recognizing the renal form as well as the cerebral, cerebro-spinal and thoracic.

2. The renal form has a particular symptomatology (moderate diarrhea, considerable exhaustion, extreme adynamia, earthy color of the skin, abundant epistaxis, early delirium, very elevated temperature and but little exanthematic eruption); and the urine

offers constant alteration (sanguineous color, odor of boiled bread, sediments composed of red and white globules and casts; albumen in considerable quantity).

3. The ordinary form of the fever is differentiated from the renal form by the greater intensity of the abdominal symptoms, by a more abundant diarrhea, later delirium, less elevated temperature, by a more confluent exanthematic eruption. The urine is of an orange color, and sediments are not always present and are mainly composed of urates, fats and phosphates. Albumen is not always present, and when so, quantity is small.

4. But few of the solitary and agminated glands of the intestine are altered. The kidneys, although large, present the alterations of interstitial nephritis.

5. The course and duration of the disease varies, but the termination is usually fatal.

6. Variations in the quantity and composition of the urine render the prognosis more or less favorable.

7. The patient must be put upon the strict milk diet, and cold baths must be formally avoided.

INEBRIETY, ITS CURABILITY. — Dr. Albert Day (*Quarterly Journal of Inebriety*, March, 1878) in an extended paper makes the following points:

1. Inebriety is a disease; developing diseased emotions; weakening the will power; depressing the moral elements of nature and developing the lower animal propensities. It is a disease that feeds upon itself, and if the habit is entailed by a family it will become extinct in the third or fourth generation. It depresses the vital forces and makes men indolent and improvident.

2. Alcohol in excess is not a stimulant but a powerful depressent. Instead of stimulating, it produces anæsthesia. It renders the victim insensible to all outside impressions, and produces not only chronic alcoholism but other diseases in their various forms.

3. With proper treatment the disease or habit may be cured, like other diseases of the nervous system.

4. While we would not in any degree undervalue public sentiment, which is calculated to correct this great evil, yet there is a

vast and important necessity for asylums and homes for the cure of the intemperate, as experience has shown.

BROWN-SEQUARD'S PRESCRIPTION FOR THE TREATMENT OF EPILEPSY:

℞ Sodii Bromidi,
Potassii Bromidi,
Ammonii Bromidi .... āā ʒiii
Potassii Iodidi,
Ammonii Iodidi .... aa ʒiss
Ammoniæ Sesquicarb............................... ʒi
Tinct. Columbæ....................................... ℥iss
Aquæ destillatæ...................................... ad ℥viii

Full dose, one and one-half drachms before each meal and three drachms at bed time.—(*Boston Medical Journal.*)

DEATHS FROM ETHER—AN ANALYSIS OF EIGHTEEN REPORTED CASES.—Dr. Carotley Dawson (*British Medical Journal*, March 2, 1878) has collected from the three English weeklies of the last ten years the records of one hundred and fifty-one deaths from the use of anæsthetics. Of these, thirteen were from ether. To these he adds the records of five deaths said to have occurred in America. In nine of these cases evidently the ether played a secondary part. In the other nine the ether alone produced the deaths. From a careful study of these the following are important facts:

1. Ether was inhaled in various yet limited quantities, from three inhalations of it up to as many as would consume half a pound on a towel, and then produced the symptoms ending in death. It was diluted with various quantities of atmospheric air, and given in various methods.

2. The face was reported to be "dusky blue," "dusky red," "livid," "cyanotic" or "turgid" in seven of the nine cases, and never said to be "white" or pale; in the other two the color is not reported.

3. In seven cases, the heart did not cease to beat till some time had expired after the commencement of the alarming symptoms, and after the ether had been discontinued; the intervals varying from

four minutes to three hours. In those of which the notes were comprehensive, we read that the pulse remained feeble, weak or good for a longer or shorter length of time after the ether had been discontinued, or after the alarm had been taken. In the other two cases no certainty on that point can be gathered.

4. The lungs were reported to have been gorged with blood in five cases, and the pulmonary artery in the sixth. In another, the trachea contained a clot of blood; and of the remaining three, two cases were not reported at all; and in one case only in which the patient died three hours after the ether inhalation was over, were the lungs pale, and even then they were "edematous."

From these facts, Dr. Dawson concludes, 1st, that the fatal effects of ether do not depend upon any directly poisonous property of its own; and, 2d, these cases died by "asphyxia." He explains his facts and conclusions by the following: "An intense cold produced by the ether under certain circumstances causes the small blood-vessels of the lungs to contract, and so offer such degree of resistance to the right ventricle of the heart as to stop it if it be weak or wearied, and embarrass it if it be strong; and by watching the symptoms from this point of view, we are likely to be able to cope with the dangers as they may arise, or even to prevent their occurrence entirely.

THE CURABILITY OF INSANITY.—(*Canada Medical and Surgical Journal*, February, 1878.)—A very general impression prevails among the profession, and to a less degree among the people, that diseases of the mind, if subjected to treatment sufficiently early, admit of cure in from 75 to 90 per cent of the cases so treated; and that the prominent cause of insanity becoming a chronic ailment is the neglect of friends to apply the remedy, by placing the individual so afflicted sufficiently early under medical charge. Of late years, however, several writers have claimed that the results obtained from the study of the statistics of large asylums, were not strictly correct, inasmuch, as in these tables the same patient was sometimes credited with two recoveries, having returned two or more times during the year for maniacal attacks, and in other cases, the patient had been admitted for the second, third, sixth and even ninth attack. The apparent percentage of cures detailed in such statistics is radically wrong, and has given rise to the above mentioned impression.

Dr. A. Mitchell, of Scotland, has lately published a most valuable paper in the *Journal of Mental Sciences*, in which he shows the actual curability of insanity as recognized in the public institutions of that country. In his inquiry all the asylums of Scotland are regarded as one hospital, and the different institutions merely as different wards; so that a patient leaving one asylum and being admitted into another was regarded as passing from one ward to another. Taking all the persons admitted into the Scotch asylums for the first time during one year, and for twelve years thereafter, he gives the result of these cases, and shows what had become of them; what was the mental condition of those who recovered, and in what condition mentally were those who had died, at the time of their death.

The total number of patients admitted for the first time in the year 1858, was 1,297. Twelve years after, or in 1870, 412 of this number had died insane in the asylums, and 273 of that number remained as inmates; 612 of the total number first observed had disappeared, but the history of 411 of these was traced, and he reports that 136 of these remained insane, 42 died insane, and 94 were living but still insane; that 275 had recovered; 78 of these had died not insane, and 197 were still living in 1870, and were not insane. The histories of 201 were not capable of being traced. Thus he traces the histories, during twelve years, of 1,096 patients, who had been admitted in 1858, all being first admissions. Hence, in general terms, three-fourths of the whole number remained insane, or had died insane; and one-fourth had recovered—a certain number having died in full possession of their mental faculties. This yields a percentage of 25.09 of recoveries, which is very far below the proportion popularly assumed as the average of recoveries under treatment.

VACCINATION IN GREAT BRITAIN.—It would seem from statements made by the *Sanitary Record* that vaccinations in Great Britain are either very carelessly made, or that humanized vaccine has been used so long that it has become nearly inert. "During the year and a half ending June, 1877, 2,755 deaths from small-pox were registered in London, of which 775, or 28.1 per cent, were of children under five years of age. During the epidemic of 1871–2 the proportion of deaths of children under five years of age was 36.6 per cent."

The official returns claim 91 per cent of successful vaccinations, and yet 775 fatal cases of small-pox occurred among the infant population. No wonder that the opponents of vaccination point to these figures to prove their claims to the right.

PARACENTESIS IN PLEURISY.—In the *British Medical Journal*, for Nov. 24, 1877, Wilson Fox, M. D., considers the mortality of pleurisy, and compares this mortality in cases that have been treated without paracentesis, with fatal cases that have undergone the operation.

He shows that the mean total mortality, in a report of over thirteen thousand cases, may be fairly estimated at from 10 to 17 per cent; while in a collection of nearly seven hundred cases where paracentesis was performed the mortality rose to 27 per cent. Serous effusions are the most favorable cases for operations. Cases of empyema, and those serous effusions that undergo purulent transformation are least favorable for operation.

While the author admits that recent improvements have reduced the percentage of fatal cases after paracentesis, he decidedly favors treatment of all pleurisies, if possible, without operation.

A STRANGE CASE.—Dr. W. Rubb (*Nashville Journal Med. and Surgery*, January, 1878) reports the following strange case: The patient in question is the *little* daughter of Mr. Samuel B., who resides in northeast Simpson county, Kentucky. Both parents of the child are healthy, and offer nothing to indicate the hereditary transmission of the disease. The patient was *four* years old in March, 1877, and then weighed *one hundred* pounds, measuring eighteen inches across the chest and nearly five feet in height. Her mammæ were as fully developed as they are at puberty, and she mensturated regularly. Up to February, 1876, though she was remarkably developed, she had given no indication of the following strange phenomenon. At that time, her temperature became higher than normal, and hair soft and downy, in color like that of her head, commenced growing all over her body. It completely covered her, with the exception of her face, palms of her hands and soles of her feet, and the skin was entirely hidden from view. The sudoral secretion became constant and profuse, of a very offensive odor which is noticeable at some distance from her. So profuse is the secretion that in half an hour after being washed and dressed her person and clothing will become saturated. The perspiration is of a dark yellow color and of greater specific gravity than usual. Her voice is coarse like a man's, and sounds as though she was speaking in a barrel. Her strength is equal to that of a full grown man. Her intellect is much beyond her years, and her form is perfect.

Alimentation in Surgical Accidents and Diseases.—(*Hospital Gazette*, January 15, 1878.)—From an interesting paper by Frank Hamilton, which provoked a lively discussion in the New York Academy of Medicine, we deduce the following conclusions of the author upon this subject:

1. Chronic or low and persistent forms of inflammation are most apt to occur idiopathically, and as a consequence of traumatic lesions, in persons who are imperfectly nourished, and they are followed by the most serious results, such as ulcerations, caries, necrosis, etc.

2. Chronic inflammations are seldom permanently overcome, until by proper nutrition the general system is brought up to the standard of health. Not until all the various functions of the body are performed with vigor and fidelity—a condition which implies perfect nutrition.

3. Acute inflammations are most apt to occur, idiopathically, or as the result of traumatic lesions, in persons who are imperfectly nourished, and are followed by the most serious results, such as suppuration, pyæmia, erysipelas, etc.

This statement is not inconsistent with the fact that people grossly fed and intemperate in the use of stimulating liquors, are notoriously liable to rapid and destructive inflammation as a consequence of traumatic injuries.

4. It seems a necessary corollary from the third proposition, that in order to the prevention of acute inflammations after traumatic injuries, and in order to cure inflammation after it has commenced, and in order to prevent its accidents or dangerous sequelæ, it is well, if not absolutely necessary, to nourish the patient through each of these several periods.

5. Food is not, of necessity, aliment. It ought to be appetizing and digestible.

6. The stomach is not always in a condition to digest and assimilate food; but this condition is exceptional. Such cases demand rest or medication.

7. Anæsthetics, morphine and narcotics generally impair digestion, and this fact should always be taken into consideration when their exhibition becomes necessary.

8. There is a popular inclination to the excessive use of medicines of all kinds in the class of diseases under consideration, as well as in all other diseases, which often interferes with the success of our operations and prevents recovery from accidents.

9. Nutrition is always safe and proper.

10. We need more good food for our patients—especially in public hospitals—more diet kitchens and fewer drug stores everywhere.

Pathology.

REMARKABLE CASE OF SPHACELATION OF THE STOMACH.—(*L'Union Medicale*, February 23, 1878.)—Dr. Dujardin-Beaumetz lately presented the notes of this remarkable case to the Medical Society of Paris. The patient, aged 47 years, entered his wards on the 19th October ult. Five days before, whilst in excellent health, and without appreciable cause, he had had an hæmatemesis, accompanied by acute pains in the stomach. Examination revealed no epigastric tumor, and the digestive functions were in such regularity that he bore milk diet very well, and without vomiting. The patient spoke of a stomatitis from which he was then suffering, but referred to it in a very light way, saying, that every year just about that time he was troubled with aphthous sore mouth. Beaumetz did not believe that this affection was similar to his previous attacks, and did not know to what the ulcerations of the lips, the under surface of the tongue, the uvula, and even the borders of the epiglottis were to be ascribed.

On October 28th the patient, who up to that time was progressing nicely, hardly complaining of any pain, never having vomited, and demanding solid nourishment, died suddenly, after having experienced an acute pain in the stomach, and ejected a few spoonfuls of blood.

At the autopsy, the doctor expected to find a simple ulcer of the stomach, which had been the diagnosis of the case. To his great astonishment, he found almost the entire stomach, the pyloric region excepted, sphacelated through all its thickness, and transformed into a soft eschar, which occupied not only the stomach, but also the diaphragm and omentum. On removing this mass, the lungs, liver, spleen and intestines were exposed to view. Before such destruction, the idea of simple ulcer had to be put aside, and the entrance into the stomach of a caustic liquid had to be admitted. This *post-mortem* diagnosis explained perfectly the peculiar sore mouth. After closely questioning his wife, it was discovered that he had been very despondent from want of work, and that he feared poverty for his wife and children. On the 14th he had gone to the water-closet, and on coming out he fell almost inanimate to the ground, crying in haste for water to quench the burning in his stomach. Thus this patient concealed from every one his attempt at suicide, and was able during fourteen days to preserve the appearance of health and the integrity of his digestive functions, while the greater portion of the walls of the stomach was destroyed, and succumbed only on the separation of the slough.

CEREBRAL DISEASES LOCALIZED.—Dr. Dreschfeld (*British Medical Journal*, March 23, 1878) reports three cases of brain disease in which the lesion was localized during life and confirmed by *post-mortem* examinations. The disease in each case was in the anterior lobe of the brain. Analyzing these and other similar recorded cases, he directs attention to the following aids to a correct diagnosis: (1) Convulsions are often present, and show certain peculiarities; they are ushered in at once by a loss of consciousness, without a preceding aura; the convulsive stage is very short, while a prolonged stage of insensibility follows the fit. (2) Motor and sensory paralyses are absent unless the disease extends into or affects the motor sphere (bounded on the surface of the brain by the ascending frontal and parietal and supramarginal convolutions, and in the interior of the brain by the corpus striatum, the optic thalamus, internal capsule and radiating fibers of the corona). (3) Headache is constantly present. (4) Certain psychic symptoms are always present, such as mental apathy, torpor, somnolence and dementia; violent delirium or maniacal excitement, on the other hand, has only rarely been observed in lesion of the anterior lobes. (5) Vomiting is oftener absent than present; and the same is the case with optic neuritis.

Pathological Changes of the Muscles of the Larynx in Cases of Phthisis.—Dr. E. Fraenkel, in Hamburg, found that the muscles of the larynx became constantly altered in phthisis. The changes take place in the contractile substance, and in the internal perimysium, and then in the corpuscles of the muscles, while the sarcolemna remains unaffected. The changes in the *contractile substance* are as follows: It becomes divided into several parts, then the stripes of the fibers get indistinct, and in higher grades of the disease the whole contents of the muscle fiber are changed to a finely granulated mass (fat granules). This entirely disappears when the degeneration progresses further. The changes in the internal perimysium consist in an abundant development of its connective tissue, and in a considerable increase of its cellular elements.—(*Virchow's Arch., Vol.* 71, 1877.)

Amnesia, Associated with a Cerebral Lesion of Definite Extent and Seat.—Dr. W. H. Broadbent (*British Medical Journal*, March 2, 1878) reports the following case: An omnibus driver, of intemperate habits, had a fit about Oct. 1, 1877. Dr. Broadbent first saw him on Oct. 16th. He walked into the hospital, and no paralysis could be detected except very slight paresis of the right side of the face. Sensibility, however, was defective over the entire right half of the body, limbs and face. His speech consisted almost exclusively of an inarticulate jargon, in which, however, from time to time, a distinct word or phrase would be heard, such as "if you please," "thank you." It was difficult to make out how far he understood what was said to him, as his replies, though mere jabber, were often appropriate so far as length was concerned, natural in tone and accent, and accompanied by natural gestures and facial expression. Obviously he thought that he was expressing ideas present in his own mind, but he did not recognize the fact that his language was inarticulate. By telling him to do something his want of comprehension of spoken words was made apparent. His invariable response to the command to give his hand was to put out his tongue; and in one or two doubtful instances only was his action appropriate, and then he was probably directed by signs. He did not understand writing. He died suddenly Nov. 6. *Post-mortem* examination revealed a softening, involving a considerable part of the posterior half of the convex surface of the left hemisphere. The greatest depth (¾ in.) and breadth of the morbid change were seen in a transverse vertical section made at the end of the fissure of Sylvius. Here the softening reached from near the superior longitudinal margin to within an inch of the inferior and internal edge of the hemisphere. The convolutions affected were proceeding from before backwards, the supra marginal lobule and corresponding part of the infra-marginal, or first tempero-sphenoidal gyrus; more deeply, and in a more advanced degree, the postero-parietal lobule, the angular gyrus and the first and second tempero-sphenoidal convolutions in the same plane; less extensively the middle connected gyrus, and the part of the occipital lobe adjacent. The softening involved the tempero-sphenoidal lobe more completely than the parietal lobe. The membranes over the vertex were opaque and raised by fluid from the convolutions. The doctor thought that the intellectual disturbance could be explained by the destruction of the channel from the auditory perceptive center to the higher center in which the name is associated with the idea which it symbolizes, or to the destruction of this name center itself.

Therapeutics.

HYOSCYAMINE IN THE TREATMENT OF THE INSANE.—Dr. Robert Lawson (*West Riding Lunatic Asylum Medical Reports*) gives the following estimate of hyoscyamine: It possesses great value in the treatment of cases in which aggressive and destructive excitement is the leading symptom of insanity, in cases of chronic mania with special delusions of suspicion, mania of a subacute or recurrent form and simple mania characterized from the first more by agitation than excitement, and due to the existence of obscure delusions and hallucinations. In the treatment of the excitement of general paralysis, in the epileptiform seizures of the same disease and in the epileptic status, it is also of use where chloral, as rarely happens, is found to fail. But, perhaps, the most striking results, from the use of the drug, occur in the treatment of such patients as willfully or impulsively destroy large quantities of clothes and bedding. In willful destructiveness three-quarters of a grain at a single dose reduces the patient to reason, and, for a time at least, puts an end to his expensive habits.

Action of Medicine.

HOW DOES QUININE INFLUENCE THE EMIGRATION OF WHITE BLOOD CORPUSCLES IN CASES OF INFLAMMATION?—The question, whether the stopping of the emigration of white blood corpuscles by quinine was simply the result of its influence upon the protoplasma of the white blood corpuscles, or was caused also by disturbances in the circulatory apparatus, induced Dr. J. Appert to make some new researches in this line. He operated with blood from the Rana temporaria and the Rana esculenta, and found that the amœboid motions of the white blood corpuscles cease, and that they assume a granulated appearance in the course of 10 to 90 minutes when brought into contact with solutions of quiniæ mur., having a strength from 1-200 to 1-2000. Even weaker solutions (1-2500 to 1-3000) influence the motions of the white blood corpuscles. But a solution of 1:3500 causes no perceptible changes of them. Upon the other elements of blood, quinia has no effect.

When in cases of inflammation quinine was locally applied, the doctor found that continued irrigation of a 1-10th to 1-5th per cent sol. upon a wound (of the tongue) limited the emigration, dilated the vessels and hastened the circulation.

Hypodermic injections had the following results in cases of inflammation: Single doses of quinine, amounting to from 1-3500 to 1-4000 of the frog's weight, not only stop the emigration of white blood corpuscles but also hinder their attachment to the inner walls of the vessels. Besides, the cells turn darker, their amœboid motion is arrested, and the pulse as well as the circulation is slower. Doses of 1-4444 of the frog's weight, injected within three or four hours, limit the emigration of cells and those within the vessels appear darker.

When the doctor compressed the arteries (of the tongue) he found after the application of quinine a retardation of the circulation, a contraction of the vessels increasing with the strength of the solution, an intermittent current of blood in the larger arteries, a decrease in caliber of the axis of the red current in favor of the broadness of the plasmatic current of the margin and numerous attachments of the white blood corpuscles to the walls of these vessels. In the veins there was observed a retardation of the current, a broadening of the red current to the walls of the vessels, and no tendency to attachments to the walls of vessels on the part of the white corpuscles. At last, no emigration was observed for hours.—(*Virchow's Archives, Vol.* 71, 1878.)

Ophthalmology.

CASES OF DETACHED RETINA TREATED BY DRAINAGE OF THE EYE.—Dr. Herman Cohn (*Deut. Zeitschrift f. Prakt. Med.*, August, 1877) gives an excellent account of our knowledge on this subject. Hitherto detachment of the retina in cases of high myopia has been regarded as one of the most incurable diseases of the eye. Sichel, Kittel and Arlt endeavored to cure them by introducing a needle through the sclerotic. Grafe punctured the sclerotic and divided the retina. This, though occasionally successful, was oftener followed by cyclitis and inflammation of the vitreous. Cohnheim, Lasinsky and Samelson, by pressure and confinement in a dark room, obtained an occasional good result. About six months ago Wecker suggested drainage of the eye by means of the introduction of a loop of gold thread through the sclerotic and under the detached retina. Cohnheim has tried this method in four cases with excellent results. As soon as the retina has become re-applied to the choroid it becomes capable of perception even after the lapse of three years. But only the sense of space returns, not that of color. In no instance was any inflammation of the eye or impairment of the pre-existing amount of vision observed. This method does not interfere with other general methods of treatment.

Surgery.

INDIRECT FRACTURES OF THE SKULL.—(*L'Union Medicale*, February 28th, 1878.)—M. Maurice Perrin, at the meeting of the Surgical Society of Paris, Feb. 20th, reported the results of his researches and experiments upon the mechanism of indirect fractures of the skull, or those produced by counter-stroke. Although they have been admitted by some, denied by others, and have been the objects of numerous experiments, yielding but negative results, M. Perrin determined to renew these experiments, in changing slightly the mode of experimentation. Instead of producing the fractures by the stroke of a hammer upon the skull, or by precipitating the cadavers from the top of buildings, M. Perrin, in order to imitate more closely what takes place in usual cranial fractures, covered the prominent points of the skull with little layers of cotton before exposing it to the experimental shock. From a series of experiments, of which he exhibited the specimens to his colleagues, his results, as far as the mechanism of fracture is concerned, may be thus formulated: All the fractures produced by percussion, were direct fractures; on the other hand, fractures produced by precipitation from a height of three or more yards, were mostly all indirect or by counter-stroke.

Among other results the following unexpected conclusion was discovered from these experiments: that the skulls of the aged, where the sections are well united, offer more resistance than those of the young or of adults, where synostosis has not taken place. M. Tillaux called attention immediately to the contradiction there was in these results to the generally received opinion among medical men.

TRAUMATIC HERNIA OF THE LUNGS.—(*L'Union Medicale*, February 19, 1878.)—M. Cauvey, of Béziers, reported the following case at the sitting of the Surgical Society of Paris, February 13, 1878. The patient, male, age 24, was stabbed in the ninth intercostal space. There resulted a penetrating, oblong wound. Patient became immediately dyspnœic; pulse, small and slow. Cold, wet compresses were first applied to the wound. The following day fever arose, and on the third the vesicular murmur disappeared from the base of the left lung. M. Cauvy, being called, found a tumor, formed by the lung, projecting between the lips of the wound like a mushroom, and having the appearance of hepatic tissue. Coughing and respiration caused no modification of its shape or appearance. M. Cauvy applied a ligature around the base, and excised the tumor. Cicatrisation was complete the twenty-eighth day after the accident. The doctor saw the patient seven months after the operation; no trace remained of this grave traumatism.

M. Duplay remarked that records of traumatic pneumatocele were rare, hence this observation was all the more interesting. Hernia of the lung seems to be a fortunate complication of penetrating wounds of the thorax, for it prevents hemorrhage and the entrance of air into the pleural cavity; in a word, it transforms a penetrating wound into a non-penetrating one. Where the hernia has been replaced, M. Cauvy says there has always occurred grave accidents. He concludes, contrary to the precepts of classic authors, that traumatic hernia of the lung must not be reduced.

URETHRAL FEVER.—Prof. Thomas R. Brown, M. D., of Baltimore, Md. (*New York Medical Journal*, February, 1878), says the prefix "urethral" indicates that this peculiar form of pyrexia follows treatment—usually surgical—of the urethra. The treatment may be the mildest catheterism or the gravest treatment for the cure of stricture or the removal of stone. No condition of health or temperament can be said to predispose to this fever, neither do they exempt from it.

The definition must be limited if we would have an intelligent view of the subject. We must reject all those morbid conditions which have no claim except mere coincidence, as, for example, those extravasations of urine that result from false passage, for it has been abundantly proved by Menzil and Simon Van Buren, and others, that limpid healthy urine absorbed into the blood is comparatively harmless. Urethal fever belongs to the class of purely reflex disorders.

The condition which is called irritation, either active or passive, is the force which produces this action. If this same irritation, with its reflex action, can cause such disorders as lachrymation, pain, spasm, ulceration, cataract, paralysis, loss of vision, etc., surely it can explain and cause the attacks of urethral fever without invoking other aid.

Prof. Brown makes his varieties of this fever number three:

1st. The most common variety is a fever with a temperature not exceeding 101° Fahr., preceded by a chill either mild or pronounced, succeeded by nausea or vomiting, by sweating sometimes profuse, and anorexia, with malaise. In many cases the expression of weariness during the attack is striking. This form makes its appearance, usually, almost immediately after operation and will have left no trace by next day, provided the patient's urethra has not been handled meantime.

2d. In his second variety the difference lies not only in the increased severity of the symptoms, but in the addition of icterus, of certain mental disorders, which may amount to delirium, and in the delay of the arrival of the attack, the icterus and certain mental troubles are necessary to this class.

3d. The last variety of this disease includes all those cases in which the reflex action is more marked, and, in addition, come the symptoms of suppression of the urine, with signs of uræmic intoxication, together with a lower range of the thermometer. The duration of the attack is short—as a rule—terminating either in death or recovery very soon. Death has been known to take place in the course of a few hours, and recovery, if it takes place, will be decided in a few days. Like the other two varieties, a seizure of this variety may follow the mildest or severest measures alike.

FRACTURES OF THE EXTERNAL MALEOLUS OFTEN UNRECOGNIZED.—W. R. Whitehead, M. D., in the *St. Louis Medical and Surgical Journal*, says that fractures of the external maleolus often pass for sprains of the ankle. Malgaigne denies that such a fracture occurs. Hamilton barely alludes to it, while Maissonneuve and Nelaton describe the symptoms of such a fracture well. There is no displacement and rarely any crepitus. The diagnostic signs are: 1st, pain in an exceedingly limited transverse linear direction corresponding to the known anatomical seat of the fracture as produced on the cadaver; 2d, a linear ecchymosis after a few days, which also corresponds to the line of fracture.

In a sprain of the ankle joint the pain is diffuse, but a sprain may accompany this fracture and render the diagnosis more difficult.

It is desirable that surgeons should give more attentive examination to sprains of the ankle, to detect, if possible, such fractures if they exist. The treatment is immobilization of the ankle joint with an unyielding splint of starch or plaster of Paris, or something which fulfills the same indications.

ANHYDROUS DRESSING OF WOUNDS.—Robert Hamilton, F. R. C. S. (*London Lancet*, August, 1877), says that, while Prof. Lister has done great good in his line by insuring greater care and cleanliness in the dressing of wounds, and has accomplished more than many had dared to hope, yet, in his (Hamilton's) opinion, certain modifications will, if put into practice, show still greater results. One of these modifications is the dry dressing. He would keep water entirely away from the surface of a wound. No drainage tube would be required if there was nothing to drain away, and there would be nothing to drain away if there were no disintegration of tissue. If, then, water applied to a granulating surface brings about a new chemical re-arrangement and breaks up the new growth into new forms, one of which is the degenerate pus cell, why should not the anhydrous dressing facilitate the new growth and render it conspicuous for the absence of pus.

Mr. Hamilton denies that the formation of pus is due to bacteria—shows that pus is readily formed where the bacteria cannot penetrate, and claims that pus is the product of an additional atom of oxygen set free from surrounding disorganizing material, or from water or moisture acting upon living cells, converting them into pus cells.

Mr. Hamilton speaks highly of the compound tincture of benzoin as a dressing for the flesh-wounds of compound fractures, and recommends a spray of Tincture of Benzoin Co. dissolved in alcohol as a substitute for the carbolic spray in dressing such wounds and in opening joints, etc.

IRRITATIVE ALBUMINURIA.—Dr. G. Griffith (*Practitioner*, January, 1878) reports a case of a young lady upon whom he operated for fistula in ano. Soon she manifested signs of uræmic poisoning. Examination of urine showed it loaded with albumen. He discontinued the daily dressing of the wound and gave a purgative. In a few days the albumen had disappeared from the urine, and all other evil symptoms vanished. On the resumption of the former daily dressing of the wound all the former symptoms returned. After a time of rest recovery again took place. The third time the dressing was performed with the least possible irritation, and the bad symptoms did not return, but the patient made a full recovery and has had no renal symptoms or any albumen in the urine. He is positive the irritation set up in the dressing of the wound produced the albuminuria, and that a continuation of the dressing would have been attended with evil, if not fatal results. He suggests that, in various operations about the genital apparatus, a similar result may follow, and, if not heeded, death may take place.

DOUBLE LONG THIGH SPLINT FOR TREATING FRACTURES OF THE FEMUR IN YOUNG CHILDREN.—Prof. Frank H. Hamilton (*New York Medical Record*, January 5, 1878) has modified his double long thigh splint for treating fractures of the femur in children by making the foot-piece longer than the width of the child's body so that the feet of the child, when the splint is adjusted, may be spread — not uncomfortably—apart. This arrangement facilitates cleanliness. He also recommends that the strips of bandage, which fasten the coaptating splints, shall not be tied so as to include the long outside splint.

Successful Treatment of Laryngeal Stenosis.—H. Clinton M'Sherry, M. D. (*Maryland Medical Journal*, January, 1878), has followed Schrotter's plan of dilatation of the larynx by the introduction of hollow bougies in the larynx, and has succeeded in so far overcoming the contraction as to enable his patient to resume his work. The patient had formerly had syphilis which had so far thickened the larynx as to prevent sufficient air from entering the lungs. The man was cyanotic, but laryngotomy was not necessitated by his condition.

Concussion—Its Pathology.—M. Duret (*British Medical Journal*, December 20, 1877) presents certain experiments that show that it is to changes in the tension of the cerebro-spinal fluid, and not directly in the cerebral pulp itself, that we should refer the phenomena of concussion. He made small openings in the cranium, by a perforator, and injected various fluids through it. Sometimes he used water, and sometimes coagulable substances, as gelatine. By injecting a large quantity of fluid, he succeeded in bursting the fourth ventricle and tearing up the aqueduct of Sylvius, and as the same result followed the injection of a coagulable fluid, which could be traced, he was able to demonstrate that the effect was due to the tension of ventricular fluid. By cutting away the cervical muscles, the occipito-altoidean membrane may be laid bare, and its respiratory pulsation watched or recorded by the graphic method. When fluid was injected into the cranial cavity, this membrane became tense, pulsation ceased, and all the clinical phenomena of shock presented themselves; but on perforating this membrane with a bistoury, an escape of cerebro-spinal fluid was followed by a disappearance of all the symptoms.

M. Duret further discovered numerous small hemorrhages in the substance of the medulla and in the subarachnoid spaces, principally at the base of the brain, but also over the convexity.

INJECTION OF CRYSTALLIZED CARBOLIC ACID FOR THE CURE OF CERTAIN CASES OF HEMORRHOIDS.—Prof. Pooley, of Columbus, Ohio (*Toledo Medical and Surgical Journal*, November, 1877), reports several cases of hemorrhoids, inflamed and painful, cured by the injection, deep into their substance of crystallized carbolic acid, liquefied by heat. The instrument was a common hypodermic syringe, and the quantity used was five or six drops for each injection, each hemorrhoid was injected in succession. The pain was slight and soon ceased. The carbolic acid caused a slough which soon separated, and the cure was accomplished in a week or ten days. The cases to which this treatment applies are those of inflamed and irritable hemorrhoids, either external or partly contained within the rectnm. This treatment is contra-indicated for internal bleeding piles, and for those wholly external that are flabby and comparatively harmless.

CERTAIN INJURIES OF THE WRIST-JOINT TREATED BY REASON RATHER THAN TRADITION.—Dr. L. S. Pilcher (Proceedings of the County of Kings, March, 1878) presents the results of his experiments and clinical experience on certain injuries of the wrist-joint, as follows: Motion, massage, support and compression are of chief importance in the treatment of sprains of the wrist-joint. Immobilization, prolonged beyond the period of afflux, increases the dangers of inflammatory complications, and prolongs the period of repair.

Severe sprain of the wrist is liable to be complicated by a transverse fissure of the radius near its lower extremity. This injury cannot be positively demonstrated in any given case, and does not call for special treatment. Transverse fracture of the radius within one inch of its lower extremity is the result of a force of avulsion communicated to it though the medium of the anterior ligament of the wrist-joint, as the consequence of extreme bending backward of the hand and wrist. Displacement of the fragments is the result of a downward and forward impetus impressed upon the upper fragment of the radius still in action after the avulsive force has been expended.

By the displacement, the posterior aponeuro-periosteal envelope of the radius is not torn across, but is stripped up from the back of the upper fragment for a variable distance, retaining its attachments to the lower fragment also. The state of flexion into which the hand is thrown upon its recovery from the position of extreme extension, renders this dorsal strip tense, and causes the lower fragment to become entangled by the projecting rough posterior of the upper fragment. The strength and tension of this dorsal pseudo-ligament may be such as to resist powerful extension in the line of the long axis of the radius and to occasion great difficulty in the reduction of the fracture. It is the chief agent in the produciton of permanent bony deformity as a sequel to this injury. The movement of rotation backwards around the head of the ulna, performed by the lower fragment and the attached carpus and hand simultaneously with the displacements of the radial fragments, is due chiefly to the oblique direction and point of ulnar attachment of the strong inner farciculus of the anterior ligament of the wrist. Reduction of the fracture, even in cases of extreme displacement is easily effected by bending the hand and wrist sufficiently for back to relax the dorsal pseudo-ligament, slight extension and manipulation will then suffice to restore the fragments to their proper relations. The fracture is both preceded and followed by a severe sprain.

The sum of the injuries inflicted presents a sprain of the most aggravated description. The fracture never entails permanent disability. The sprain is the fruitful source of long continued, sometimes permanent, impairment of the function of the joint.

The sprain is first, both in order of time and importance, in its demands upon the attention of the surgeon. After the reduction of the fracture every support necessary for its satisfactory retention is afforded by the structures which surround it, with the simple addition of an adhesive strap snugly encircling the wrist so as to firmly grasp the injured structures. No splint of any kind is useful in the treatment of this fracture.

Dislocation of the ulna does not alter the indications for treatment nor demand any material modification of the methods to be used.

LISTER'S ANTISEPTIC METHOD.—S. Messenger Bradley, F. R. C. S. (*London Lancet*, October, 1877), doubts the real efficacy of Mr. Lister's spray producer as a germicide. He says that he greatly doubts whether the carbolic vapor which is produced will reach as high as 30 per cent, and does not believe that so weak a solution will kill bacteria. Having thus criticised Mr. Lister, he shows that subcutaneous operations are comparatively safe and free from suppuration. He then details cases where rachitic deformities have been operated on subcutaneously with very uniform success without the spray—the puncture made was sealed with collodion and no suppuration followed.

[We are of the opinion that the antiseptic method of Mr. Lister is not necessary to complete success in private practice with us.—ED.]

THE TREATMENT OF PARALYSIS IN POTT'S DISEASE OF THE SPINE.—Charles T. Poore, M. D. (*New York Medical Journal*, February, 1878), says the occurrence of paralysis, in the course of disease of the vertebræ, is always a source of anxiety both to parent and physician, and although the prognosis in a majority of cases is good, and ultimate recovery of motion probable, yet it leaves the affected muscles atrophied and the limb dwarfed.

The time necessary for spontaneous recovery is usually long, and the question arises, can that time be shortened and the patient be saved the annoyance and discomfort attendant upon long disease of the muscles and paralyzed limbs and loss of control over the passages of excrements, both liquid and solid?

Some hold that this paralysis is due to bony pressure, direct, dependent on the curvature or displacement, and that, in order to cure the paralysis, the sole treatment should consist of efficient support. In 172 fatal cases of this disease (Pott's), in which *post-mortems* have been made, 84 were complicated with paralysis. In 66 cases, the causes of pressure on the cord were: Fifty-three cases of thickened meninges (pachymeningitis), 4 of dislocation, 1 of enlargement of the odontoid process, 1 of compression by a rapid formation. In 1 case dead bone was the cause; in 1 case the cord was stretched over a blunt angle; in 1 case diseased bone had given away and completely compressed the cord; and in three cases the compression was caused by the bursting of an abscess into the spinal canal. Direct bony pressure was found to be extremely rare at *post-mortem* examinations.

Profound paralysis may exist without any deformity, and there may be any degree of curve, without compression. In a patient of the doctor's own, that died from meningitis extending from the seventh cervical and first and second dorsal vertebræ up to the brain, the disc between the seventh cervical and first dorsal had disappeared, and the articular surfaces of the bodies of corresponding vertebræ were carious. On exposing the dura-mater, there was found a ring of *caseous matter* completely surrounding it. At a point corresponding to the diseased discs, the dura-mater was thickened and pressed upon the cord; the arrachnoid was vascular, but there was *no* diminution of the bony canal of the spine. The posterior common ligament was destroyed at the point where the caseous matter was found, thus allowing the pus and broken down materials to penetrate to the membranes of the cord. There was but a slight curve.

The doctor concludes that the mechanism of paralysis in the majority of cases of Pott's disease of the spine, is *destruction* of the *posterior common ligament, contract* of *pus* with the *dura-mater, inflammation* and *thickening* of this *membrane* (pachymeningitis), *pressure* on and *chronic inflammation* of the *cord*."

The symptoms of these pathological processes are: 1. Those of simple pressure on the cord. 2. Those of inflammation, an increase of reflex action in the muscles below the point of the disease, if the pressure is not at the lumbar enlargement, and troubles connected with the evacuation of the bladder and rectum.

In the treatment of his cases, the doctor uses braces, and uses also the cautery. He lays down the following rules for the cautery: 1. The iron should be olive-pointed and perfectly smooth. The instrument he uses has a platinum cap spun on. 2. The iron *must* be raised to a white heat. 3. In children always *chill* the parts to be operated on *with ice* and *wipe dry*. 4. The iron must be simply brushed over the skin, so that only a white lime is seen after the operation. Used in this way, the cautery occasions very little pain. Children return to their toys after the operation, as if nothing had happened. During this treatment good firm support should be kept up, unless anchylosis has already taken place.

ELEPHANTIASIS ARABUM—A NEW TREATMENT FOR.—NERVE SECTION.—The patient, a colored man, was first admitted to the Pennsylvania Hospital on December 1, 1873, for elephantiasis of right leg, which extended from the middle of the thigh down to the instep. The skin and superficial cellular tissue were very much hypertrophied, and hung in large folds over the ankle joint. Under some portions of the thick, scaly epidermis, there were effusions of pus.

Dr. Thomas G. Morton tied the femoral artery at the usual place, on December 12. The patient was discharged March 21, 1874, very much benefited. On a subsequent admission to hospital, the limb was found to be nearly as large as it was prior to the ligation; the patient, however, considered himself much improved, and thought that the operation had markedly arrested the progress of the disease.

The patient was re-admitted to the Pennsylvania Hospital, on November 9, 1877. The leg was found to be double the size when last seen, measuring *twenty-one* inches in circumference. The man desired to have an amputation performed.

"Having noticed the frequency with which operations for nerve-section are followed by atrophy of the parts supplied by the nerve which is cut, Dr. Morton determined to attempt the artificial production of atrophy of the right lower extremity by section of the motor nerve of that limb. Accordingly, on November 17 of last year, the *right sciatic nerve was laid bare, and one and one-half inches of its length exsected at the upper third of the thigh.* No unpleasant symptoms have occurred since the operation incident to the section. There has been a steady diminution in the size of the limb ever since. On January 3, of this year, it was measured and found to be but 12½ inches in circumference, a reduction of 8½ inches. The thick skin has desquamated, leaving a perfectly soft and pliable skin beneath. There has not been the least disposition on the part of the skin to ulcerate, and the last sensibility is confined to the extreme anterior portion of the dorsum, all of the sole of the foot, and a strip of integument about two inches in width on the posterior part of the leg.

We are happy to say that to Dr. Morton alone are due the congratulations of the profession for the conception and performance of this novel and (judging from his first case) highly successful operation for the relief of what has always hitherto seemed to be a most troublesome, and but partially curable affection, at the hands of the surgeon.—*Philadelphia Medical Times, Jan.* 19, 1878.

RECTAL SURGERY AT ST. MARK'S HOSPITAL, LONDON.—J. M. Mathews, M. D., in the *American Medical Bi-Weekly* of January 5, 1878, says that the wounds made by the surgeons of St. Mark's, in their operations, are all dressed with cotton-wool. If a sinus is laid open to cure a fistula, it is packed with cotton; if a fissure or ulcer is divided, cotton-wool is the dressing, and after all operations in the rectum, a plug of cotton is left in the rectum to prevent hemorrhage. A surgeon at St. Mark's said, "If he were called upon to give up all other dressings for these wounds, he would hold to dry cotton-wool."

TO STOP EPISTAXIS.—B. W. Barton, M. D. (*Maryland Medical Journal*) states that he controls bleeding from the nose by the use of Mensel's styptic applied on a quill feather that has been dipped into the styptic. The feather is thrust into the nose, turned once or twice between the thumb and finger quickly, when a firm clot results, which answers all the purposes of a plug. The feather is then cut so as not to inconvenience the patient, and the clot is left to separate. The discomfort is said to be less than that caused by the plug.

Physiology.

A NEW VIEW OF PHYSIOLOGY.—J. C. Darby, M. D., in *St. Louis Medical and Surgical Journal*, Feb., 1878, says that if a healthy child born of healthy parents—sound in body and mind all their lives—should grow to maturity in perfect health, in such a person the law of constructive assimilation has alone controlled his development.

The laws of constructive assimilation and destructive metamorphosis are like the tides. The ebb never begins to flow until the flood-tide ceases, and *vice versa.*

When a man is subjected to starvation, or is sick, the law of destructive metamorphosis begins in his body. While this law continues its operation the law of constructive assimilation is suspended. While the starvation or sickness continues no part of either of the three forms of food—fatty emulsion, glucose or albuminose—absorbed from the stomach or intestines becomes a part of the living organism. When the starvation or sickness ceases and the individual obtains food then the law of constructive assimilation begins to operate, and the three forms of food ultimately become changed into the living organism.

(The doctor claims that bile is a purely excrementitious substance, separated from the food by the liver as the food taken up from the intestines by the portal circle passes through it, but does not account for the ultimate disposal of the large quantity secreted or *excreted* if his hypothesis is correct.)

The doctor admits, furthermore, that the blood found in the hepatic veins of animals may sometimes contain sugar, but denies that sugar is thus found when the animal is in *perfect health.* The urea, which is excreted by the kidneys, the doctor claims, is formed in the kidneys, not in the liver.

OXYGEN AND THE BLOOD GLOBULES. — (*L'Union Medicale,* March 2, 1878.) A note from M. Paul Bert, in reference to the action of oxygen upon anatomical elements, was lately read before the Academy of Sciences of Paris. M. Dumas called attention to the interesting and paradoxical fact which the researches of the author had discovered: the blood globules, whose function it is to carry oxygen to all the parts of the body, are affected, by the presence of free oxygen in the blood serum, similar to the anacrobiæ or to those ferments, which M. Pasteur has shown, can not live in the presence of free oxygen. Accordingly, the globules which carry oxygen will be certainly altered whenever the proportion of this gas becomes so large that a certain amount remains free in the serum.

THE MOVEMENTS OF THE HUMAN BRAIN. — Prof. Morro (*London Lancet*, January, 1878) details some observations upon the movements of the brain in the case of a woman who, by syphilis, had lost the greater part of the frontal and parietal bones. A Marcy's *explorateur a tambour* was applied to the exposed surface, the movements being registered on a rotating cylinder. The curves thus obtained showed that the brain had three kinds of movements. First, there were pulsating movements caused by the heart contractions; second, there were oscillations, embracing several pulsations and corresponding to the movements of respiration; third, there were undulations of still longer duration, embracing a series of oscillations and pulsations. When the patient was perfectly at rest these movements exhibited a fall in their mean height during inspiration and a rise during the succeeding expiration. Compression of one carotid diminishes the movements of the brain, and of both arrests them; but as soon as the pressure is released the movements recommence, the amplitude of the curves being temporarily much increased. Compression of the jugulars causes great increase of the amplitude of the curves. Changes occur in the movements of the brain with every change in the activity of the mind. The supply of blood to the brain is so much diminished by a few deep inspirations that the pulsations become as little observable as during compression of the carotids.

HOW CAN SPEECH AND COUGHING TAKE PLACE IN A PERSON FROM WHOM BOTH VOCAL CORDS HAVE BEEN REMOVED?—Dr. Lister (*British Medical Journal*, March 2, 1878) reports a case in which, for the removal of a tumor from the anterior commissure above the vocal cords, he removed both vocal cords entire, also the false vocal cords. After recovery the man could both cough and talk. Dr. Lister's explanation of this phenomenon is this: By laryngoscopic examination in his own person, after an experiment on one of the lower animals, he ascertained that the pulpy folds of mucous membrane which surmount the summits of the arytenoid cartilages can be carried forward to the base of the epiglottis by an antero-posterior movement of the cartilages not generally known to occur so as to act as a secure valve to the opening of the respiratory passage. It is the vibrations of these posterior parts of the arytenoid epiglottidean folds which constitute the mechanism of laryngeal stertor; and it is by their means that the exit of air is prevented during the accumulating pressure in an expiratory act which ends in coughing. The strain of the act of coughing is not borne by the delicate apparatus of the *rima glottidis*, but by these folds of mucous membrane which cannot suffer from such treatment. The patient was exhibited with the laryngeal cicatrix from which the cords had been removed. He showed that he could cough naturally and he also spoke some sentences in a deep gruff monotone plainly audible to all present.

ALBUMEN IN THE URINE OF HEALTHY PERSONS.—Prof. W. Leube, in Erlangen, examined the urine of a number of healthy men and came to the conclusion that the presence of albumen in the urine is not always the result of pathological changes in the kidneys, but is a physiological phenomenon with certain people. The quantity of albumen in these cases was only a small one, and certainly did not amount to over one-tenth per cent. In most cases albumen was found in the urine of people who had previously undergone extraordinary bodily exertion. The doctor does not explain these facts, as our present theories of the physiological excretion of urine differ widely. But he points to the importance which this phenomenon has in relation to diagnosis. Especially, cases of interstitial nephritis might give rise to difficulties, the more so as even hyaline cylinders were found by exact observers in the urine of healthy people. Only an engorged kidney might easily be detected by physical examination.—(*Virchow's Arch.*, *Vol.* 72, 1878.)

A CASE OF A TAIL IN MAN.—Dr. Greve, in Oldenburg, reports a case in which the os coccyx was developed to a veritable tail, that was taken away about eight weeks after the birth of the boy who, in other respects, was well formed. It was one inch long and moved when touched with the point of a needle before excision was performed.—(*Virchow's Arch., Vol.* 72, 1878.)

Obstetrics.

On Menstruation.—Dr. Stricker, of Frankfort, reports on Westhoff's researches on the beginning of menstruation. They comprehend the statements of 3,000 women in the lying-in hospital of Marburg. The medium term of the appearance of the menstrual flux was about 17⅓ years. The earliest cases commenced during the tenth year (3), eleventh year (9), twelfth year (16), and thirteenth year (55). The latest occurred during the twenty-second year (63), twenty-third year (29), twenty-fourth year (20), twenty-fifth year (2), twenty-six year (1), and twenty-eighth year (2).

The following table shows at what time the most of the cases commenced:

During the 14th year,	243
During the 15th year,	337
During the 16th year,	442
During the 17th year,	490
During the 18th year,	559
During the 19th year,	295
During the 20th year,	322

Besides, it was found that the menses commenced on an average somewhat earlier with the fair than with the brunette—average difference 24½ days.

The period lasted on an average about 5 days for 1,121 cases. Some (4) would menstruate only one day; others (70) two days; one about ten days, and five even fourteen days. The most (220) were menstruating eight days, then came those (215) with three days, and those (101) with four days.

The author also calls attention to some cases of precocious menstruation. Among these are the following: 1. O. Wactis' case, concerning a child three years old with whom the flow lasted for three or four days. 2. Susewind's case of a child of two years who had a regular discharge at intervals of four weeks from her first year. Her organs of generation were unusually developed. The labia majora were covered with hair, and her breasts had the size of a large apple. In short, the child had the appearance of a girl of sixteen upon a small scale.—*Virchow's Arch., Vol.* 72, 1878.

TWO CONTRASTED FORMS OF WEAK LABOR.—(J. Mathews Duncan, M. D., in the *Obstetrical Journal* of February, 1878, says, that the most common kind of weak labor is that where we find inertia of the uterus. It is usually found in multipara. The uterus does not become stimulated to sufficient activity. These cases bear oxytocics such as ergot.

The rarer form of weak labor is, in most respects, a contrast to the former. It usually occurs in primiparæ, or young women who are in a peculiar nervous condition. This condition is such that it induces pain and early retraction of the uterus; but the expulsive effort is lost, in a great measure, because of the retraction of the body of the uterus. These cases are frequently but erroneously included with the first variety mentioned as cases of uterine inertia.

Weak labor from uterine inertia can be distinguished from the weak labor arising from premature uterine retraction, by the following signs:

In the former the pains are generally infrequent, short, and cause little suffering. In the latter, they are usually frequent, of ordinary duration, and painful. In the former bearing down is slight, or absent. In the latter it is powerful. In the former the uterus is flabby. In the latter the uterus gives a feeling of high tension during a pain. In the former uterine irritability is not easily excited by manipulation. In the latter it is over-excited by manipulation. In the former the lower margin of the uterine body cannot be felt at all, or is indistinctly felt above the symphysis pubis. In the latter the uterine body is rapidly brought to near the umbilical region as labor progresses, and is easily felt, its hard and rounded edge marking the junction of the body of the uterus to the cervix.

If labor is long continued in the latter variety of cases, there is danger to the mother from the thinning of the cervix, and danger to the child from the compression of the placenta. Ergot should not be given in these cases, but anodynes are indicated.

In either class of cases the forceps are indicated after sufficient dilatation of the os uteri.

In cases of inertia of the uterus flooding may occur after delivery, but can usually be prevented.

The Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Vital Statistics of Detroit.

It has been a subject of regret to our State Board of Health, and in particular to our friend Dr. Baker, that Detroit does not furnish reliable vital statistics. With the view of elucidating the cause of this as regards the death statistics, we were enabled by the courtesy of Col. Dillmann, our city clerk, to examine the death certificates, which are kept on file in his office. These certificates are supposed to be made by the physician last in attendance on the deceased, and furnish the name, age, sex, place of birth, cause of death, time of death, and place of death of deceased. Superintendents of cemeteries are not permitted to grant interments until such certificate has been furnished.

We found, in fact, however, that a number of these were made by persons who made no pretensions to practice medicine; a large number by midwives and irregular practitioners of every kind, and the remainder by regulars. As a result of this, as might be expected, many of these certificates are not only literary curiosities in themselves, but bring to light a variety of diseases which their makers must certainly be granted the honor of having discovered, but which are not useful as material for vital statistics. A few of them we here transcribe *verbatim:* "Kraps." "Convulsion Fits." "Born before time." "Result of confinement." "Cramps." "Not living with her husband," etc.

It is not to be wondered at, in view of these, that Detroit does not furnish reliable vital statistics. And yet, it seems to us, that with a little addition to the duties of the health officer of this city, the material presenting might be utilized for this purpose. In this officer, for instance, might be vested the power of granting burial certificates on presentation of satisfactory death certificate signed by last medical attendant of deceased. It might be made compulsory on physicians, or persons acting as such, to fill these certificates of death, and upon the health officer to critically examine, and when satisfactory to register the same. These death certificates might be made to contain the information on all points desirable, and in cases of sudden death, or where no medical man was in attendance on deceased at time of death, might be filled up by health officer from the most reliable data procurable.

Some such general plan as this would seem practicable, as it would add but little to the duties of the health officer, who would thus, if a faithful and capable officer, be enabled to furnish statistics nearly absolutely reliable. It would also be in entire accordance with the plan suggested by Dr. Baker in his suggestions as to the "methods of collecting vital statistics," in his report to the State Board of Health, in 1876.

Bob Sawyerism in the Profession.

It seems that at the banquet of the last meeting of the Kentucky State Medical Society among the toasts given were the following: "The eye" and "the ear"—which "were answered by two physicians claiming to be specialists and who were thus afforded this opportunity of advertising themselves." The *American Bi-weekly*, animadverting upon this "execrable toast, introduced at the table of hospitality," suggests that if this enormity is to be repeated, the new standing toasts of "The rectum, the urinary bladder, and the chancre" be also added that those who advocate these engaging fields may also have the chance of advertising themselves.

We cannot ourselves understand the itching some men in the profession have to bring themselves surreptitiously into notice. There is scarcely a newspaper one can take up but he is treated to the wonderful achievements of some doctor, who has removed a tumor, or amputated a limb, or accomplished some wonderful cure, which, Bob Sawyer-like, he desires to bring before the public. If this penchant was confined to men from whom we expected no better, then it might be regretted less, but when those whom the profession esteem and, in a measure, look up to, descend to such contemptible charlatanism, our regret for the decay of the true *esprit du corps* which should animate the profession is unbounded. If it were fully realized how little really is gained by these claptrap methods of advertising they would certainly be less frequently resorted to. We were recently asked by an intelligent gentleman how much Dr. ——— paid the newspapers for advertising him, since he seldom looked at a city paper without seeing his name mentioned in some connection or other. And this is about the extent to which the intelligent public are gulled by such quackery. Its estimate of a physician is not by the frequency his name appears in the public prints, but is based upon merits which he cannot very well advertise. The profession itself, of course, is never deceived by such shams, but take them at their real value, and there is no surer method of losing its esteem and respect than by resorting to such unethical methods to make popularity.

H. A. C.

Memoranda.

The causes of Claude Bernard's death were a severe disease of the bladder, followed by pyelomphritis with uræmic complications.

Dr. Nathan Bozeman has been appointed to the position in the N. Y. State Woman's Hospital held by the late Dr. E. R. Peaslee.

The Medical College of the Pacific announces that it has adopted the plan of education at present followed by the University of Pennsylvania.

The April number of the *Virginia Medical Monthly* contains a capital steel engraving and excellent biography of our old friend Dr. Robert Battey, of Rome, Ga.

"In the seventeenth century a marriage in Paris produced almost five births; in the eighteenth a little more than four births, and at the present time scarcely three."—Proust.

Up to Jan., 1877, Sir Henry Thompson had performed five hundred operations for stone in the bladder of adult males. The proportion of deaths in the entire number was one to eight and one-half deaths.

In France, Italy and Belgium the average age of men at marriage ranges between 25 and 35; and in England between 20 and 30. In Paris the marrying age attains its maximum at 40 for men and 35 for women.

An Englishman, having exhausted every other means of restraining his wife's drunkenness, hit upon the plan of painting her face black while she was unconscious from drink. This kept her in the house until the paint wore off. With a relapse he administered a fresh coat of paint.

The *Medical Press and Circular* (English), of March 13, 1878, gives the evidence that "many medical men receive commissions from undertakers in consideration of their recommendations." To us it seems especially horrible that a physician should be willing to make capital from the death of his patient.

Prof. Francis Gurney Smith, M. D., died April 5, 1878. From 1863 until his death he filled the chair of Institutes of Medicine in the University of Pennsylvania. He was well known from his connection with a text-book — Neil & Smith's Compendium of Medicine—with the American edition of Carpenter's and Marshall's works on Physiology.

In the State of Antioqua, Columbia, each marriage produces from ten to fifteen children. One woman had thirty-four children. A man married three times has now fifty-one children, and as his last wife is still young, he has hopes of possessing at least sixty.

Maize forms the base of the food, and is supposed to exert a favorable influence upon fecundity.—*France Medicale.*

Macmillan & Co., of London and New York, announce a "Journal of Physiology," designed to combine the workers in this field on both sides of the Atlantic. Dr. Michael Foster, of Cambridge, England, is the chief editor, with numerous able assistants in this country and Europe. It will be issued in parts at intervals of two or three months. Price per volume of 500 pages, $5.25.

Proust, in his work on Hygiene, calls attention to the law of inheritance as existing in France as the reason why Malthusianism is so popular in that country. This *law* at the father's death divides his inheritance rather than the will of the father. The operation of this law has enormously increased the number of landed proprietors in France. They are said now to number *four millions.* These four millions, desirous of preventing as much as possible the subdivision of their lands, "voluntarily limit" the number of their children, usually to one, two or three.

Dr. H. B. Baker, Secretary Michigan State Board of Health, has compiled the State laws with reference to the duties of householders, physicians and others, respecting diseases which endanger the public health. Under a penalty of one hundred dollars they are required to at once notify the health officer of the district in which they live. If they do not thus act, then the supervisor is required to prosecute and recover the penalty. It is hoped that to be notified of their duties will induce all persons to at once report all cases of diseases which endanger public health, and so prevent any serious epidemics.

"Quinine appears to exert an influence on that part of the nervous system for which the malarial poison has a special affinity; and in virtue of this is more curative than other remedies, just as arsenic has a special tonic influence on the motor nerves, in virtue of which it is more powerful in chorea; and caffeine an action on the pulmonary nerves, which renders it more useful in asthma. Hence, we believe that in malarial diseases quinine is a stimulant or sedative to that part of the nervous system most involved in these diseases."—Moinet.

The American Medical Association will hold its twenty-ninth annual session in the city of Buffalo, N. Y., on Tuesday, Wednesday, Thursday and Friday, June 4, 5, 6 and 7, 1878, commencing Tuesday at 11 A. M.

The American Medical College Association will hold its next annual meeting in the city of Buffalo, N. Y., June 3d, commencing at 10 A. M. Place of meeting, Medical College Library Room, opposite St. James's Hall.

Among the agricultural classes of Norfolk, England, Dr. Farr values the life of an infant at birth at $12.50 in its prospective labor. Five years later his value as a productive agent is $130; five years later it is $300. At twenty-five it has reached its maximum value, $615 a year. At fifty the value is reduced to $345, and at seventy is only $250 a year. At eighty his value is $102 less than nothing. Yet juries often estimate lives as worth from five to fifty thousand dollars, and these lives those of farmers too, viz.: after they have been killed and some wealthy corporation can be made responsible for the death.

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Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

CYCLOPEDIA OF PRACTICE OF MEDICINE. Ziemssen: Vol. xvi. Diseases of the Nervous System and Disturbances of Speech. Cloth; pp. 893. 1877. New York: Wm. Wood & Co.

In this volume Eulenberg treats of "Vaso-Motor and Trophic Neuroses" and "Catalepsy;" Nothnägel of "Epilepsy" and "Eclampsia;" Bauer of "Tetanus," Von Ziemssen of "Chorea," Jolly of "Hysteria," and Kussmaul of "Disturbancs of Speech." It will be observed from this bare enumeration of the subjects discussed that we have a series of very practical topics. Further, the names of the authors furnish a guarantee that the latest views will be carefully presented. A somewhat close reading of the work has convinced us that the presumptions awakened by a reading of the title page are very fully corroborated.

Eulenberg, in his article on "migraine," insists that a certain class of cases are due to vaso-motor disturbance. Further, he divides this class into cases in which the vaso-motor nerves are paralyzed and cases in which they are irritated—a distinction which we have found of great practical value in suggesting the proper treatment. Among the causes of migraine he lays special stress upon an hereditary predisposition, in which there is a congenital anomaly in the primary structural development of the central nervous apparatus. The analysis of symptoms by which the various phenomena presented by this disease are intelligently accounted for is of great interest. All are referred, directly or indirectly, to a "morbid state of the cervical sympathetic or of the corresponding region of the cervical cord, which is liable to periodic aggravation."

Of the causes of angina pectoris Eulenberg emphasizes especially "exposure to cold" and the "excessive smoking" of tobacco as being well determined. He describes the disease under four types:

(1) Excito-motor cardiac ganglionic angina pectoris, produced by direct lesion of the automatic excito-motor ganglia of the heart. With this type there may be an increase or diminution of the rapidity of the pulse from irritation or paralysis of the cardiac ganglia.

(2) Regulator angina pectoris, from lesion of the cardiac system of nerves of arrest. In this case we may have a direct or reflex neurosis of the vagus.

(3) Excito-motor sympathetic angina pectoris, from lesion of the accelerator nerves of the heart which run with the sympathetic.

(4) Vaso-motor angina pectoris, from affection of the vaso-motor nerves running in the sympathetic. As these types may all combine in any particular case we have the basis for a variability of the circulatory symptoms accompanying the attack paralleled in the variety of the pathological conditions. Full allowance is made for the forms of the disease caused by organic disease of the heart or blood vessels. Among the remedies suggested in treatment we find that the nitrite of amyl has been accorded its proper place.

Progressive muscular atrophy is considered in full detail, and has a special interest just now. Eulenberg's conclusions accords with Charcot's theory that the only difference between progressive muscular atrophy and progressive bulbar paralysis is in the difference of location of the original seat of the disease—one attacking the motor cells of the anterior columns of the spinal cord, and the other the motor cells in the floor of the fourth ventricle. Their cause is the same.

Nothnägel's account of epilepsy is prepared with more than usual care. Still, he has not been able to advance our knowledge of this intricate subject. The seat of epilepsy he locates in the pons and medulla oblongata. He does not believe that there are any uniform constantly recurring histological changes forming the basis of epilepsy. As to the functional changes which the pons and medulla undergo in epilepsy he thinks that the ganglion cells of the medulla and pons undergo such changes in their structure that the reflex centers respond from time to time much more easily than normal ones to irritations, either from without or developed within. Further, these centers respond with motor manifestations of far greater intensity than normal. The treatment recommended involves no new principles or remedial agent. In fact, almost everything in or out of the materia medica has at one time or another been employed in combating this disease. The use of the bromides, based upon the view of an increased irritability of the nerve cells in the medulla and pons varolia has the most to recommend it in both theory and practice. We have not space to even refer to the remaining chapters of this volume. Suffice it to say that they are uniformly at least equal to the average of articles that have appeared in former volumes. The publisher's work has been performed with the same substantial elegance.

ON THE SOURCE OF MUSCULAR POWER. Arguments and Conclusions Drawn from Observations upon the Human Subject under Conditions of Rest and of Muscular Exercise. By Austin Flint, Jr., M. D. Paper; pp. 100. 1878. New York: D. Appleton & Co.

Two views respecting the source of muscular power have been stoutly maintained. The problem is a complex one, and may well call forth the best efforts of investigators. Dr. Flint holds that the source of muscular power is the disintegration of the muscle itself during exercise. Pavy and others believe that the power comes from food outside of the chemical changes taking place in the muscle. In the essay before us Dr. Flint reviews briefly the views and experiments on either side. Especially does he attend to Dr. Pavy's observations made upon Weston, the celebrated pedestrian, during 1876. It will be remembered that Dr. Flint made very careful observations upon the same Weston in 1870, while he was walking in New York. As this work is not likely to fall into the hands of many of our readers, we shall give Dr. Flint's views with considerable fullness. The subject is an important one, with very practical relations:

"While the various elements of nitrogenized food burned in oxygen out of the body will produce a definite number of foot pounds of force, the application of this law to the changes which food or certain of the constituents of the body undergo in the living organism is uncertain and unsatisfactory.

"The method of calculating the possible amount of the force of which the body is capable by using as the sole basis for this calculation the force value of food must be abandoned until the various necessary elements of the problem can be made sufficiently accurate to accord with the results of experiments upon the human body.

"Experiments show that the estimated force value of food after deducting the estimated amount used in circulation, respiration, the nutritive processes and in the production of heat, will sometimes account for a small fraction only of muscular work actually performed, this work being reduced to foot-tons by the uncertain process alluded to already.

"It must be admitted that under ordinary and normal conditions of diet and muscular exercise, the weight of the body being uniform, the ingress and egress of matter necessarily balance each other. If this balance be disturbed by diminishing the supply of food below the requirements of the system for its nutrition and for muscular work, the body necessarily loses weight, a certain part of its constituents being consumed and not repaired. If the muscular work be increased to the maximum of endurance and beyond the possibility of complete repair by food the body loses weight.

"Increased and excessive muscular exercise increases the discharge of urea by the excretions.

"All that is known with regard to the nutrition and disassimilation of muscles during work teaches that such work is always attended with destruction of muscular substance which may not be completely repaired by food, according to the amount of work performed, and the quality and kind of alimentation.

"My experiments upon a man walking 317½ miles in five consecutive days who at the beginning had no superfluous fat, show that the loss of weight was actually 3.44 pounds, while the total amount of nitrogen discharged from the body in the urine and feces, in excess of the nitrogen of food taken for these five days, assuming that three parts of nitrogen represent one hundred parts of muscular substance, as has been shown by analysis to be the fact, was equivalent to 3.037 pounds of muscular substance.

"Finally, experiments upon the human subject show that the source of muscular power is to be looked for in the muscular system itself. The exercise of muscular power immediately involves the destruction of a certain amount of muscular substance, of which the nitrogen excreted is a measure. Indirectly, nitrogenized food is a source of power, as, by its assimilation by the muscular tissue, it repairs the waste aud develops the capacity for work; but food is not directly converted into force in the living body, nor is it a source of muscular power except as it maintains the muscular system in a proper condition for work. In ordinary daily muscular work, which may be continued indefinitely except as it is restricted by the conditions of nutrition and the limits of age, the loss of muscular substance produced by work is balanced by the assimilation of alimentary matters. A condition of the existence of muscular tissue, however, is that it cannot be absolutely stationary, and that disassimilation must go on to a certain extent, even if no work be done."

INJURIES OF THE EYE AND THEIR MEDICO-LEGAL ASPECT. By Ferdinand Von Arlt, M. D. Translated by Charles S. Turnbull, M. D. Cloth; pp. 178. 1878. Philadelphia: Claxton, Remsen & Haffelfinger.

Careful students of the eye will find little that is new to them in this volume. Yet it will not be devoid of interest, because of the compactness with which the well known facts are arranged. General practitioners whose knowledge of the eye is limited, will, on the other hand, find this an extremely useful book. Injuries here described are likely to fall under the notice of those far from the medical centers, and yet obliged to meet and care for such injuries. The author divides all ocular injuries into three groups: (1) Injuries produced by sudden compression or concussion of the eye. (2) Injuries produced by the entrance of a foreign body not acting chemically. (3) Scalds and corrosions of the eye-ball.

The work closes with a brief account of affections of the eye which are caused artificially or are feigned. Speaking in a general way, this is a genuine good book, worthy of a place in any medical library, and valuable to all practitioners. In fact, it is the only modern work which at all fully discusses the entire subject. L. C.

THE ETIOLOGY OF INTEMPERANCE. By Charles W. Earle, M. D., Physician to the Washington Home. Supplement to the Seventh Annual Report. Paper; pages 9. 1878.

This little paper contains Dr. Earle's conclusions based upon the treatment and study of 1,200 cases. As to the first causes of drunkenness he finds that forty per cent are caused by association with drinking companions, ten per cent by sociability, ten per cent by trouble of various kinds, two per cent by the custom of drinking in families, two per cent from mental depression and active brain work, ten per cent from army or navy associations. Of the remainder some were engaged in the liquor traffic, some were in college. Largely, the same causes produce relapses in those who have once reformed.

A REVIEW OF THE TREATMENT OF FRACTURE OF THE FEMUR. By Dr. Edward Borck. Paper; pp. 10. 1878.

These are both reprints from the *St. Louis Medical and Surgical Journal.*

From the latter the author concludes: (1) The long splint has been used since time immemorial; the inclined plane also. (2) No apparatus is perfect and none answers for all cases, but all have their advantages and faults more or less, and each may serve well in special cases. (3) We shall have more or less shortening in adults, no matter what the treatment may have been; shortening rarely happens in children, for the great and wise doctor, Nature, comes to our assistance and corrects our shortcomings. (4) It is not prudent to confine ourselves exclusively to one apparatus, but must admit that the surgeon who has had an extensive practice and experience with a particular apparatus will obtain better results with it than he who applies it only occasionally.

METEOROLOGY IN THE SERVICE OF MEDICINE. By Dr. J. Schreiber. Reprint from *Richmond and Louisville Medical Journal.* 1878. Paper; pp. 12.

This instructive address renders it evident that we have only begun to study climate in its relations to disease. It shows how, by step after step, we have reached the conclusion that the most potent factor of disease that can be found in climate is organic elements floating in the air. To get rid of these elements is to obtain a pure air.

REPORT OF THE RESIDENT PHYSICIAN OF BRIGHAM HALL—A HOSPITAL FOR THE INSANE, SITUATED AT CANANDAIGUA, N. Y. 1877.

This report by the medical superintendent, Dr. D. R. Burrell, indicates that a fair degree of prosperity has been enjoyed by the institution during the past year.

LITHOTOMY. A Tabulated Statement of Cases, with Considerations in Relation to the Operation, the Treatment, and the Preventives most Promising of Success. By David Prince, M. D. Paper; pp. 7. Reprint from the *St. Louis Medical and Surgical Journal,* April, 1878.

WHAT AM I? A Valedictory Address to the Graduates of the Medical Department, University Louisville. By Prof. J. M. Bodine, M. D. Paper; pp. 28. 1878.

This address from an old friend is capital reading, but we cannot see that he has at all advanced in the solution of the perplexing question, "What am I?"

PROCEEDINGS OF THE LOUISIANA STATE MEDICAL ASSOCIATION, The Constitution and By-Laws Provisionally Adopted, Code of Ethics of the American Medical Association. New Orleans. Paper; pages 36. 1878.

CASES OF OVARIOTOMY. 487G. Paper; pp. 8. By Dr. Edward Borck.

THE DETROIT LANCET.

VOL. I. JUNE, 1878. No. 6.

Original Communications.

Typho-Malarial Fever.

BY J. S. CAULKINS, THORNVILLE, MICHIGAN.

Abdominal typhus or typhoid fever is not the fatal disease that it was twenty-five or thirty years ago. Not only are its most malignant features softened down, and its mortality rate of twenty per cent much diminished, but it has a somewhat different clinical history, in respect that the enteric symptoms, formerly visible at the outset of the disease, are at first wanting, and do not develop themselves till about the second week, the appearances till then being those of a common bilious fever. A case destined to run its four weeks, and exhibit in its last half all the diagnostic characters of typhoid fever, will show in its first quarter, even under firm pressure, absolutely no abdominal tenderness. In some instances there is a redness at the tip and along the edge of the tongue which is prophetic of its future character; sometimes, quite as pale as in health, it will be covered with a coat of bilious-looking fur, and the ntermissions will be so distinct that the medical attendant sees nothing in the case but an ordinary malarious attack, which he confidently expects, and probably promises the patient and riends, to arrest in a day or two.

The day or two, however, pass, and in spite of his predicions and a vigorous use of his antiperiodics, the surprised and affled doctor is obliged to stand impotently by and see the isease run on, until at last he is compelled reluctantly to acknowledge that it is a case of typhoid fever with which he has to deal.

Nearly all the continued fever that the practitioner in the country districts, at least, meets with at present, is marked by this composite character, and deserves the new and expressive name originally invented for it by Surg. J. J. Woodward, U. S. A., typho-malarial fever, a name that describes the disease so well that it has been almost unanimously adopted by the profession.

There has been much discussion over this modified form of typhoid fever, and the point at issue is this: Is it a new disease, or is it merely typhoid fever occurring in malarious subjects? Dr. Woodward was not only the inventor of the term typho-malarial fever, but it was through his influence that the term got a place on the monthly reports of the army surgeons during the late war, and the meaning that he attached to it was the latter of the two. As he explained it before the Section of Medicine of the International Medical Congress, at Philadelphia, 1876, typho-malarial fever is typhoid fever happening in a subject that has been exposed to malarial influences, and, after the discussion which followed the reading of the doctor's paper on "Typho-malarial fever: Is it a special type of fever?" his opinion was adopted as the sense of the Section of Medicine.

Although this decision seems to almost close the question, there are yet stubborn reasons to believe that it is erroneous, and that typho-malarial fever is not a complication of diseases, but a genuine hybrid or mongrel.

It should be observed, before proceeding farther with the discussion of what is called typho-malarial fever, that there is a third theory respecting it, but it is one so little in accordance with the facts in the case, that it is strange that it should have any adherents.

This third theory denies that typhoid poison has anything to do in this class of fever cases, and considers all the phenomena, typhoid as well as bilious, to be due to the agency of malaria solely—that is to say, what we are calling typho-malarial fever is adynamic malarial fever. We know very well that malaria may complicate nearly all diseases; but if we believe that it can produce two such widely differing sequences as those of which we have always classified the one as bilious, and the other as typhoid, we may easily come to the conclusion that other trains of symptoms—perhaps rheumatic or pulmonic—are due to its influence as well, and in the end we might have a severely simple theory of the causation of diseases, and say that all alike are the effects of the unknown something which we call malaria. There is a source of confusion in thinking on this subject, which, doubtless, has its influence on some minds, in the sort of double sense in which we use the word "typhoid." Used as a substantive, we doubtless always mean by it abdominal typhus fever; but as an adjective, we sometimes apply it to all diseases, without any reference to enteric symptoms, meaning by it merely a low asthenic type of the disease to which the epithet is applied.

It is easy enough to see how this double meaning of the word, "typhoid," would cause misunderstanding. "Bilious typhoid" must have the same exact etymological value as "typho-malarial," and why not then call a low bilious fever a typhoid bilious fever, with as much propriety as to call a low form of lung inflammation typhoid inflammation of the lungs? This double use of the term typhoid is to be regretted, but the remedy for it is not apparent. However untenable the theory that eliminates the typhoid or enteric poison from this mixed type of fever may seem, it has been, and is still, held by some excellent observers.

It was remarked early in the first campaign of the late civil war, that there were, among the fever cases, some of a type new to medical men from the Northern States, and a commission was appointed, consisting of two United States army surgeons and one from the volunteer service, purposely to investigate the subject. After bestowing much labor and attention on the matter, this committee reported that the evidence before them indicated that the class of fevers investigated by them and since named typho-malarial fever, was simply an adynamic type of malarial fever, with no mixture of typhoid poison.

In the discussion before the Section of Medicine following Dr. Woodward's paper, a prominent physician of Mobile, Alabama, Dr. Jerome Cochrane, made the definite but almost incredible statement, that all the low fevers of that region are purely malarious. It is difficult for us to believe that the fevers of the district referred to are very different from those which are prevalent in other malarious districts, and the assertion that no abdominal typhus exists in Mobile, must have been made on the theory that its effects can be simulated by malaria.

It is safe to conclude that we can abandon the further consideration of this third theory, and confine our attention to the first and second views, which, as mentioned above, are as follows: 1st view, Typho-malarial fever is typhoid fever complicated with ague; 2d view, Typho-malarial fever is a true hybrid or fertile cross between typhoid fever and ague. The word hybrid is used by Woodward and others holding the same opinion, but it is in a loose sort of sense, that is, in the sense of complication. In the context it is used in the sense attached to it by a botanist or a zoologist. What are the reasons already referred to for believing, in spite of the heavy weight of adverse opinion, that the second view is the correct one? They may be stated as follows:

1st. There is a very sharp dividing line that separates the prevalence in time of typho-malarial from the old pure form of enteric fever. This point of division for our locality, is the fall of 1861—the time that discharged soldiers began to come home. According to the theory of complication how can this be explained? Why were there not these mixed cases far more numerous twenty-five or thirty years ago than they now are? Certainly, if the theory is true, they ought to have been, for the double reason that both elements existed in greater abundance and intensity. Typhoid fever was rifer then than now, and it had none but malarious subjects for its attacks, for the reason that at that time everybody was malarious. There were no red cheeks to be seen then, but everywhere the same dirty, dingy, malarial yellow. Every one seemed charged to the brim with the invisible intoxicating agent, but in spite of the sallow faces, sore lips, enlarged spleens and torpid livers, typhoid fever was never seen in its present modified form. Theoretically, these results of malaria ought to have made the fever milder, but the truth is that it was far more fatal; theoretically no other form of enteric fever should have been seen except the modified type, but the truth is the reverse, and that type was not seen at all, every case being unmixed enteric fever from its inception.

2d. It is not reasonable to believe that malarial poisoning can favorably modify or influence any disease, and in none except typhoid fever has such a claim been made. In all other cases of a severe nature the physician places great reliance on a sound unimpaired constitution to pull his patients through the crisis. Who has ever advanced the idea that rheumatism or pneumonia runs a milder course in an aguish subject, or congratulated himself because he had secured a patient whose health prior to the attack was below the norm? No one could be crazy enough to assert such obvious improbabilities, but all will assent to the contrary doctrine that a system shattered by ague is in a poor condition to resist the attack of acute disease. The probability is small that typhoid fever is any exception to this general rule.

3d. The third reason for believing in the hydridity of typho-malarial fever is deduced from the last in this manner. The disease is admitted by all parties (except by the adherents of the discarded third theory) to be typhoid favorably modified, and, as by second, ague poison in the attacked cannot favorably modify any disease, the inference is irresistible that typho-malarial fever is the effect of a modified cause; that is to say, it is a hybrid disease, with a hybrid poison for its cause.

4th. If this is not the fact, and the theory of complication is true, then the malarious are a protected class, and we should expect to see (which we do not) among the unprotected, cases of the old unmixed enteric fever in every endemic or epidemic of the lighter type, just as we see varioloid give rise to cases of confluent small-pox.

The above are the reasons for believing, contrary to the opinion arrived at by the International Medical Congress, that typho-malarial fever is a distinct disease, propagated by its own special cause, and that this special cause is a hybrid or fertile cross between marsh malaria and typhoid fever poison. The opinion is not maintained that it is a new disease, in any other sense than new to our locality, into which it is believed to have been imported by returned soldiers from more southern latitudes where it has doubtless always been endemic.

If the above expressed theoretical views are founded in fact, they throw a curious light on the nature of the typhoid fever poison, showing to to be closely related to marsh malaria. This conclusion is deduced from the fact that a true hybrid or fertile cross must be the progeny of parents not remotely connected with each other, certainly not farther than closely related species of one genus, oftener not farther than varieties of one species. The progeny of parents farther removed is a mule incapable of propagating the cross, which perishes with the first generation. The inference then is that malarial poison and typhoid fever poison are nearly related saprophytes, probably varieties of one species, or at the farthest, species conforming closely to a common type. It cannot be regarded in objection to this, that the diseases mentioned differ so widely that their poisons must have an equally wide difference.

It may be true that similarity between diseases proves a relationship between their causes, but the converse of this is not necessarily true. It has been proved that of two saprophytes, nearly related species of one genus, needing an experienced eye to tell them apart, one, when injected into the blood of some animals (man included), gives rise to a putrid and quickly fatal disease, while the other, injected in the same way into the blood of the same animals, is harmless. These two saprophytes are the Bacillus anthracis, the deadly parasite that causes the splenic fever, and its congener Bacillus subtilis.

In the light of such a fact as this, it need not astonish us if we are obliged to believe in the near affinity of the poisons of ague and typhoid fever, and we are encouraged by it to belie that (if we could only find it) there is a specific for the latt as efficacious as the cinchona bark for the former. Like a finger-post pointing the traveler to his road, the power of the bark to cure the fevers caused by malaria, points to the conclusion that the therapeutics of the future will be specific, probably in all, certainly in the infectious diseases.

It is the next business of the philanthropist and sanitarian to look for these specifics, and the prediction may be ventured, that not half the term of 100 years, equal to that during which civilized man has used the bark as a cure for ague, will elapse before they will be discovered. It is probable that the specific for typhoid fever will be among the first to be found, and that our descendants will think no more of breaking or anticipating a typhoid fever than we do of serving an ague in the same way.

The theoretical conclusion which we reached that the two poisons were two nearly related saprophytes, leads to the farther conjecture that the yet unfound specific for typhoid fever is a vegetable substance, although it may be that, in the golden age it, in common with much that for us is the exclusive product of the chemistry of life, will be produced by the direct synthesis of its elements. Before we get so far into the future as to lose ourselves entirely, we will retrace our steps to the present, and close this paper by considering what, in the absence of specifics, we can do for typho-malarial fever. The writer will give his own plan of treatment of the disease, not asserting that it is the best, but hoping that others may have a better. It seems to him that in uncomplicated cases nearly all the medicines needed for internal use are nitrate of silver, and sulphate of quinia.

The nitrate is given in the quantity of a grain to a grain and a half, in the twenty-four hours, made into pills at the bedside with crumbs of bread, commencing their use as soon as the character of the disease is certainly known, and continuing them till convalescence begins.

Before treating of the use of the quinia salt, it will be well to note some points of difference not yet mentioned, between the hybrid and the old unmixed form of the disease, which are mainly two, a disposition to sweat, and a lentition of the circulation. To show how very marked these characteristics ar the following notes of recent cases are given:

Cases of typhoid fever or typho-malarial. Horace Olds; ag twenty-two; size large, weighing nearly 200 pounds when i good condition. Sickened December 10th. Symptoms, firs week; chills alternating with profuse sweats, red tongue, vomiting, no diarrhea; temperature in the morning about 103, afternoon, not noted; pulse not over 80; thirst, no headache, some cough.

Second week—All the symptoms abated, except the night sweats, which, if anything, were worse. Patient was able to be up and walk about for four days, going a distance of 100 rods one day twice, but had no appetite. Tongue remained smooth and red; temperature not noted. Supposed himself well if his sweats would stop and his appetite come back.

Third week—Relapse of all the bad symptoms; sickness at the stomach, vomiting, chills, cough with pulse depressed.

26th—Morning temperature, mouth, 104¼; pulse, sitting, 80.

27th—The bowels not having been evacuated for forty-eight hours, took a tablespoonful of castor oil, the effect of which was disastrous, producing great prostration. Morning temperature, 103; pulse, 80; evening temperature, 104½; pulse, 52. Nausea, vomiting, severe chill about 12 P. M., sighing respiration and great thirst.

28th—Morning temperature, 103; pulse, 78; evening temperature, 105⅜; pulse, 97. Tongue red, some swelled; thirst intense, some diarrhea, mind perfectly clear.

29th—Morning temperature, 104¾; pulse, 98; respiration, 18. No diarrhea, no headache, mind clear; sweat during night excessively. Evening temperature, 105½; other symptoms same.

30th—Morning temperature, 101; pulse, 89. Sweat as bad as ever—to such a degree that from his shirt water could be wrung; other symptoms the same. Evening temperature, 104¼; pulse, 80; other symptoms the same.

31st—Morning temperature, 102; pulse, 90; evening temperature, 103; diarrhea; tongue red, smooth and dry; sweating continues; some jerking of the tendons of the wrist.

Jan. 1st—Morning temperature, 102¼; pulse, 85; evening temperature, 103; pulse, 82; sweating continues; great disposition to sleep.

Jan. 2d—Morning temperature, 102; pulse, 85; evening temperature, 103; pulse, 85; other symptoms the same.

Jan. 3d—Morning temperature, 102; evening temperature, 102½; morning pulse, 80; evening pulse, 85; other symptoms better.

Jan. 7th—Evening temperature, 102; pulse, 82; other symptoms improved; tongue moister, sweating lighter, some appetite, not much thirst. Gradual improvement followed till the end of the fifth week, at which time the evening temperature was 100. The night sweats lasted some time longer.

Case second. Gilbert Olds, aged 18; brother to the preceding; sickened a week later. The history of his sickness is a modified copy of that of his brother. Highest evening temperature, 103¼, ranging in the morning about 101; sweats not so severe.

Case third. Carson Wilder, aged 19; sickened Dec. 20th. Symptoms like the Olds boys, the sweating in particular. The lungs more implicated. Duration of disease four weeks. I think that I never saw either of these three boys when they were not sweating. The noticeable points in these three cases are the high temperature, the slow pulse, and the excessive perspiration.

Two other cases of milder type of continued fever showed the same sweating disposition: Libby Haines, aged 21, and A. H. Purse, aged 31.

Case sixth. Wallace Freer, aged 15. Saw the patient about the twelfth day of the fever.

March 7th, 1878—Evening temperature, 103; evening pulse, 60.

March 8th—Diarrhea came on during night; morning temperature, 101; pulse, 60; tongue red, swollen and cracked; thirst great, drinking as often as once in ten minutes; slept very little the night before, much cough; evening temperature, 10 pulse, 60; diarrhea checked, other symptoms same.

March 9th—Morning temperature 100; pulse, 65; tongu clear, red, and some thirst—not so great; evening temperatur not noticed.

March 10th—Morning temperature, 99½; pulse, 65; symptoms better; evening temperature, 102; pulse, 60. Improvement began at this point; duration of the disease four weeks.

It used to be said when the thermometer first came into use in medical practice that an increment of one degree of heat was equal to and accompanied by a rise in the pulse rate of ten beats. That there is no necessery connection between the two is conclusively shown by the above cases.

From these histories, which are a fair average of the disease as it is here, at least, it would seem that quinia was imperatively demanded in its treatment; not, however, in the expectation, which experience has proved to be vain, of arresting it, but for its tonic power against the depressing effect of the colliquative sweats, by supporting the flagging motion of the heart. The remedy has been used by the writer in moderate doses to answer this indication—that is to say, in such as would cause some ringing in the ears. The antipyretic doses of Liebermeister, 30 to 45 grains, he has never ventured to try.

The use of the alcoholics would seem to many to be called for, and to be an actual *sine qua non* in this disease, on account of the slowness of the pulse and the general depression of the system, but they have not as a rule been well borne. They confuse the head, and even when much diluted produce gastric distress. Doubtless there are cases where they will be better tolerated, and be productive of benefit; but there is no apparent criterion for this class of cases, and the medical attendant can only ascertain by trial whether or not wine or brandy is well borne by his patient. It is safe to say that in three-fourths of the cases of typho-malarial fever in country practice alcoholics are not needed. This statement will probably have a heterodox sound to some that appear to think that every sick person must be dosed with brandy or wine, but perhaps these people might change their opinions if they were compelled to change places with their patients.

Too much attention cannot be given to cleanliness. Owing to the drenching sweats, it is necessary to wash the patient often, and change the clothing and bedding, or he will be poisoned by his own excretions. As a general thing, warm or tepid bathing is safer and more agreeable to the sick than cold, which causes chilliness with imperfect reaction, and liability to congestions of important internal organs.

It is an excellent precaution to observe the condition of the feet, which, owing to the feebleness of the circulation are apt to be cold. Keeping them warm is another safe-guard against congestion.

Coming to the all-important topic of the nutrition of fever patients, the opinion is expressed, that the one article of diet which is worth more to them than all the rest is milk.

Equally vital to the welfare of the sick is good ventilation, and fortunately it is not, like food and cleanliness, entirely dependent on the caprice of friends and attendants. It is the poorer class who are helped the most by this, since it is they who least understand the necessity for the renewal of the air. Their dwellings are seldom tight (at least in the country), and diffusion of the gases goes on rapidly. There is, however, an offset to the good which they derive from this advantage over their richer brethren. Quite commonly the sick are obliged to lie in the room where the family cooking is done, and which is heated, in baking bread for instance, to that degree that the air is unfit for a well person to breathe, much less for the lungs of the sick. Besides, the air is loaded with the smell of the cooking food, than which there is nothing more disgusting to a fever patient. We cannot do the world a better service than to encourage all that live in their own houses, and whose means will possibly admit of the expense, to build a separate room for sickness, even if nothing but slabs from the saw-mill are used in its construction.

Managed according to the above plan, with its complications judiciously treated, with the needful care and nursing, with appropriate nutrition, without which medication is useless, typho-malarial fever (meaning by that term the continued fever existing in this locality and generally spoken of as typhoid fever) will not in country-bred cases show a mortality rate of five per cent.

Civil Malpractice—Article III.

BY STILES KENNEDY, M. D.

(*A case of compound comminuted fracture of leg of a man thirty-eight years of age, in general good health, fracture midway between ankle and knee, produced by a blow upon outside of leg, the tibia broken obliquely, and fibula transversely, with an open wound opposite the upper end of lower fragment of tibia.*)

Taking up the points to be discussed in the Travis case, detailed in the March number of the LANCET, in about the order they naturally arise, I shall consider, first: *The necessity, if any, of immediately probing the wound in* compound comminuted fractures of the leg. In the trial in question, great stress was laid on this point. Every witness was examined closely, and the witnesses of Travis all testified that the wound was not probed at the time the leg was set. Travis' lawyers would scarcely have thought it important except upon the advice of his medical witnesses.

Yet I find no standard authority* which authorizes any such procedure. The probe is used for other purposes. Gosselin had a patient before his class with a fracture, probably toothed, at the junction of the middle and lower thirds of the leg; on the anterior and outer portion of the limb was a wound through which no one had seen a fragment project. The question was, does this wound communicate with the ends of broken bone?

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*The works I shall use are those given as "text-books" in our medical colleges. Druit's "System of Modern Surgery," Erichsen's "Science and Art of Surgery," Hamilton's "Principles and Practice of Surgery," Gross' "System of Surgery," Bryant's "Surgery," "Hamilton on Fractures, etc.," Paget's "Surgical Pathology," Reinfleisch's "Pathological Histology," Gosselin's "Lectures on Clinical Surgery," and also two surgical volumes of "The Medical and Surgical History of the Rebellion, War Department, U. S. A."

—the simplest question, and to all appearances, the easiest answered of any that could arise in the case. Gosselin took a probe and passed it with all the skill and precaution he possessed, and utterly failed to reach the fragments or the interval between the fragments. Gosselin resorted to the probe with the hope of confirming his opinion that, as there had been moderate flow of blood for several hours and the presence of drops of oil in the blood, the wound communicated with the ends of bone. He was left in doubt. "Admit in such a case," he says "communication rather than not. There is no disadvantage, if the wound is independent, in treating it as if it communicated, and there are very great ones in treating it as independent if by any chance it communicates." In Travis' case there was no question as to the character of the fracture nor of the wound communicating with it. Defendant's counsel and medical witnesses, Drs. Case, conveyed the impression that the small pieces of bone that came away during suppuration were fragments that were left in the leg, which should have been taken out, and which could have been found by probing. An attempt was made to ward this off by plaintiff's counsel asking Dr. Case the following:

Question. Is it not true, in case of compound comminuted fracture of tibia, produced by a powerful blow, that small pieces of bone might be driven off into the flesh where no reasonable amount of probing would find them?

Which elicited the following remarkably intelligent answer:

Answer. Yes. An ordinary blow would not do it, not without cutting the leg off.

The fact is patent to every one that in persons thin of flesh, the tibia is literally right at the fingers' ends, and its fractures are more satisfactorily diagnosed and its condition more readily ascertained than in fracture of most bones.

This brings us to the second point. *How shall the wound in compound comminuted fracture of the leg be treated?* The rule is to hermetically seal it. Extensive laceration of soft parts, or comminution of bone might prove exceptions. The blood of the wound, and a compress of cotton cloth or lint are always at hand, and are mentioned, I believe, in every work on surgery. Tincture of benzoin is also used by soaking compress in it. Collodion is frequently used, and nothing is probably better than slips of linen wet with it and put in layers over the wound in the shape of a letter X. The principle is to bring the wounded surfaces together and to exclude the air from the wound. Erichsen says "no pains should be neglected to effect this desirable end." Gosselin says, "consider it then as certain that this mode of treatment is superior to any other, and relieves you from having to make use of antiphlogistics, continuous irrigation, and ice, the success of which is much less probable." "I wish to remind you of a patient whom you saw, a man thirty years of age, with a fracture with irreducible displacement, in consequence of a fall from some high place. We made every effort to reduce the fracture, but without success, and the upper fragment pressed strongly from within against the skin. The skin was at last perforated, twenty days after the accident, but no unfortunate consequence follows. The seat of fracture did not suppurate, but the skin and denuded part of the bone did suppurate and left a cicatrix adherent to bone." The sealing of the wound in Travis' case was not successful, there was no testimony showing that it was not skillfully applied.

Third. How often should the dressing be changed? Dr. G. S. Case says, page 192 LANCET: "It should not be left to exceed twenty-four hours." Erichsen says, "The lint (soaked in blood over the wound) should be left undisturbed as long as possible." Again he says, "The dressing should be left undisturbed until it loosens itself, at the end of a week or *two*." M. Chassargnac recommended diachylon strips, and left them in place ten or twelve days. Gosselin lets his collodion dressing stay on same length of time. I have seen no number of days mentioned less than a week.

Fourth. What is "setting" a broken bone? Travis' attorneys, and we must remember that in these cases the attorney simply reflects the opinion of medical witnesses of his side, claimed that the bone in this case was not "set" in its "natural position" and therefore no pay should be allowed. The fact is, setting or reducing a fractured bone is simply putting the fragments of bone *as near apposition as possible;* as nearly as possible in their normal position as regards each other.

I know that very frequently it is not only difficult, but impossible to get fragments of bone into anything like complete apposition, and no one of many difficulties liable to be met with is more resistless than overlapping. "It is so stubborn," says Malgaigne "that in the immense majority of cases the efforts of art are unable to overcome it."

The bones being placed, we must consider, fifth, some means of keeping them so. I do not propose opening anew the discussion of the value or danger of the initial, primary, or fracture bandage, which is simply a roller bandage applied under the splint. It is a point of practice upon which surgeons differ. Is there good authority for its use, is the only question that concerns us now. No matter how much abuse has been heaped upon the practice, but is it the practice of the *bonus et diligens paterfamilias?* Hamilton says it has been the practice of most surgeons for a long time to cover the broken limb with a bandage upon applying the splint.

Gross, the Nestor of American surgery, favors its use. He says "its object is twofold. 1. To afford uniform compression of the limb, thereby preventing swelling and spasm (of muscles). 2. To retain necessary dressing (occludent); the rule being always to begin at the remote part of the limb, and to proceed thence upwards some distance beyond the seat of fracture, care being taken to put it on with sufficient tightness to fulfill the object for which it is designed, without incurring the risk of interrupting the circulation."

Dr. Wales in his admirable work on surgery says: "Increase of diameter of a muscle and decrease of length take place always in muscular contraction; by bandaging the increase of diameter is prevented, and to some extent decrease in length is directly prevented. Overcoming contraction is very important, and recommended."

Druit, speaking for English practice, says: "It is *usual* to bandage the whole of the fractured limb from its extremity. This is done for the double purpose of preventing swelling and of confining the muscles that they may not contract and disturb the fracture."

Erichsen recommends the initial bandage when there is spasm of the muscles.

Prof. Dudley, of Kentucky, treated successfully for many years all fractures of the leg with nothing but the roller bandage and extension.

Gasselin recommends the roller bandage or Scultet's bandage by preference, because it is put on and off with less annoyance to the patient. He lets his first bandage stay on "about three weeks" and then changes it for a fresh one wet with concentrated silicate of potash. "Why this change?" "We have no other intention in modifying this treatment than to make the patient a little more comfortable." For any other purpose or reason in surgery the first bandage might remain three weeks longer. Indeed I find no authority for removing the initial bandage in less time than fifteen to twenty days, if it keeps its place, and there is not suppuration, blisters, or eschars, or some other accident.

Now, in utter disregard of the above facts and of every principle of physiology, pathology and surgical practice, Dr. G. S. Case, Travis' medical witness, testified as follows:

Question. If the leg of a healthy man in middle age should be bandaged *not* immoderately tight, and the bandage left on fourteen days, what would be the probable effect on the limb?

Answer. The leg would swell, the bandage being left on would strangulate or impede the circulation.

Q. If the leg was fractured between the ankle and knee, both bones broken, would the danger be increased, and, if so, what would be the probable result?

A. The danger would be increased, the leg would swell, circulation be impeded and danger of gangrene.

This seems to be a good place, therefore, to take up the sixth point in the case, *gangrene*. To this I invite special attention.

I will introduce another extract from Dr. C. A. Case's evidence; there is a great deal of the kind.

Q. State about how long the first bandages should remain on leg.

A. Three days.

Q. In case of compound comminuted fracture of leg, should the bandages become too tight, the foot and ankle painful and the foot cold, what would be the treatment ?

A. The bandages should be removed.

Q. What would be the probable result in such a case if the bandages were not loosened for ten days ?

A. There would be swelling of the parts under and below where the dressing was applied with *mortification and gangrene.*

Dr. Case, in his testimony published, on page 190, states that one of the causes of the condition of the foot that necessitated its amputation was "the tightness of the bandage." This was the special hobby of the Drs. Case, and the great cause of their professional solicitude in treating Travis.

Was the bandage too tight? Admit that Travis, the patient, judging by his sense of feeling, and Quick, the nurse, judging by what he saw and heard the patient say, both swear that the bandage was too tight. How is the *reader* to know, whether it really was too tight or not? Certainly by the symptoms detailed in the case. These are the coldness of the foot; loss of sensibility on top of the foot, or numbness, and the vesication or "blisters."

In regard to the first symptoms, Travis said his foot felt cold, and Quick says, "it felt cold to me; I had trouble to keep it warm." This is all the evidence on this point, although it is frequently reiterated.

The mere sensation of cold to the patient, whether the foot was paralyzed or not, or whether he was suffering much pain or not, is worth little or nothing as evidence of the presence or approach of gangrene. Nor does the sensation of cold produced in the nurse seem to be very marked. "It felt cold," but if he went to the "trouble" he could "keep it warm."

The cold of gangrene is marked, and to the uninformed nurse, so astonishing as to impress itself indelibly upon his mind. The limb is not only colder than the limb opposite, but is colder than the surrounding media, than the atmosphere of the room, "cold as the dead." The numbness, or loss of sensibility of the top of foot, is not an unusual occurrence, and is due to irritation of the nerve by the fractured bone, or the effusion of lymph along tract of nerve (Gross).

The bandage could not have been put on tight enough to paralyze without producing gangrene of foot (*Steele vs. Newton*).

It is well known that paralyzed surfaces are more prone to vesicles and ulcers than portions of the body not so affected (page 7).

Vesicles, blebs, bulla, phlychtena, are different names for small blisters varying in size from a millet seed to a bean, produced by irritation of skin, which contain lymph, and this varies in color from clear, opaque to dark. As a symptom or condition, vesicles are not of sufficient importance to be indexed by any of its synonyms in the works mentioned in foot-note on previous page. In the text it is not treated of, except incidentally in connection with fractures of the extremities, gangrene or severe inflammation.

In gangrene, beside the discoloration of skin around the vesicle, the contents are dark and fetid, and when the vesicles are broken, the dermis, the true skin, is dark, dull and unhealthy.

On the other hand, when the vesicles break and the surface beneath is florid, like "raw beef," it is evidence that there is no gangrene.

In themselves, vesicles indicate nothing bad; they are due to a singular modification of nutrition which follows fractures; more frequent when fractures are direct, and accompany fractures of leg more frequently than elsewhere. They frequently follow bandaging with ordinary and moderate pressure. It is not considered as damaging or complicating the case (Erichsen, Gosselin).

The great pathognomonic sign of gangrene or mortification of the foot is not mentioned at all. Whenever there is mortification there is discoloration of the tissues. If the gangrene is traumatic the skin is grayish, greenish darkened to dull purple, greenish black mottled with reddish brown and swelling. If anæmic gangrene, skin bloodless, waxy, turning black; if static gangrene, skin dark, black and swollen. What variety of gangrene did Travis have? Quick, the nurse, testifies: "There was at no time any change of color of the foot. The nerves on foot were full and large" (4th visit, page 186).

The reader, out of charity, may imagine that the Drs. Case meant the foot-sores, eschars or ulcers on the malleoli, heel and instep, when they constantly used the terms gangrene and mortification. But this would not be charity; it would spoil the heroic attempt to connect the "loss of vitality of the foot," which in part "necessitated amputation on 1st day of April, 1874, with tight bandaging during the last of September, 1873, for all the eschars had healed entirely, except one, and it was healing and healthy on the 7th day of December, 1873. Eschars do not heal or look healthy in a foot that has much of its vitality impaired. As one of the binding links in the chain, Travis' attorney asked Dr. C. A. Case: "In your opinion, how long would it take to *permanently injure* the lower portion of the leg provided it was tightly bandaged? Answer. "It might in twenty-four hours, it might not in a week's time." Dr. G. S. Case testified: Question. "What would be the probable result to the ankle joint in the case, supposed the bandage remaining fourteen days without removal?" Answer. "It would become swollen by *high inflammatory action.*"

Now, there is not a particle of evidence tending to show that there was any "high inflammatory action" in the ankle joint. There is no evidence that there was any "mortification or gangrene below the point of pressure," in the sense used by physicians or surgeons in discussions of this kind. There is not the slightest evidence any where to show that the circulation was in any degree impeded. Therefore the bandages were not on too tight.

Gosselin, in speaking upon this subject of bandaging the leg or fractures of this kind, says, page 86: "Of course, in a limb so well supplied with muscles, and whose arteries are so well protected, gangrene is not to be feared, at least in an adult."

I am also inclined to think that in cases of this kind a roller bandage applied tight enough to seriously disturb either the nervous or blood currents would displace the fibula (see *Means vs. Hallam and Barnes*).

The evidence in Travis' case shows that fibula united at least properly and near usual time.

(To be continued.)

Clinical Reports Made to the Grand Rapids Medical Society.

Dr. Brady, at a meeting held on the 26th March, 1878, presented a boy six years old with what is called complicated hairlip, the fissure extending through the lip on the left side, the alveolar process, the hard and soft palates. The doctor operated on the lip on the 14th of last January, following the suggestions of Morris Collis, and remarked that on careful inspection the society would be convinced that no other form of operation could make this boy's lip so perfect, and that it had left the lip half an inch deeper than could be made by any other operation. He then stated that the usual operation known as that of Malgagne is not applicable to such a case as the one presented, for the left side of the lip was a quarter of an inch shorter than the right, and the fissure involved the nostril. He then described the operation as performed by Collis: On one side of the chasm he makes an incision through the thickness of the lip down to the mucous membrane, but not through it. He then turns the flap back. On the other side he transfixes the lip above and carries his incision down near the margin below; the flap thus made is divided near the center; the upper half of it is brought in opposition to the other side, close up to the nostril, and secured with a suture; the lower half is brought down so as to make for the lip a regular margin, and is fixed with one or two sutures; two intermediate sutures bring the two sides together, and this completes the operation. He then remarked that this congenital deformity is due to a want of union between the natural centers of development of the upper lip; that the upper lip is made up of a central and two lateral portions. The central is connected with the intermaxillary bones, and the lateral with the superior maxillary. Hence a want of union between the central and lateral piece, on one side, results in simple hare-lip, while a want of union between the central and both lateral pieces, to double hare-lip, and the fissure may be partial or complete. It may involve the lip only, or the bone also; but it can never be in the median line; and in complicated cases the cleft will extend through the alveolar process in a line corresponding with the labial fissure, and in a still worse class, both the hard and soft palate will be fissured, as in the case with the boy presented. As regards the best time to operate, surgeons differ. Sir Wm. Ferguson, and a majority of surgeons, hold that the earlier it is performed the better, and most assuredly before teething, while others again, as Mr. Bryant, do not altogether coincide in this view. He has found that a larger number of failures follow the operation when performed during the first few weeks of life than after the third month; but when it is necessary to perform the operation early, as from inability to take food, he has operated on the fifth day, with success. The doctor then stated that in this case a portion of the maxillary bone, with two incisor teeth, protruded and occupied a part of the chasm, and that they were removed in the first part of the operation. It was the doctor's opinion that it did not make much difference what kind of sutures were used; if success follows the operation there must be union by the first intention. If there is inflammation sufficient to produce suppuration, the success is not so good; for his part, he was partial to wire sutures, as they were not so irritating as silk, and he thought it was important to separate the lip as much as possible from the bones of the face—that is, to cut all the muscular structures that draw the lip up and outwards, which was also done in this boy's case.

Dr. Johnson, at a meeting of the society, April 2d, 1878, reported a case of sub-involution of the uterus. Mrs. H., aged 46, consulted the doctor, in November last, complaining of weakness, pain in the back, and a sense of weight and fullness in the lower abdomen—menstruation was irregular as to time, and often profuse and exhausting; she had constant leucorrhea; she had had these symptoms for months, but of late they had become more marked. She has had four children, the youngest of which is 3½ years old. On examination, the body of the uterus was large, soft and flaccid, its cavity measured 5½ inches, the os was open, patulous, and so distensible that three fingers were readily introduced. The vagina was relaxed, and gave no support to the uterus, which rested on the floor of the pelvis. The doctor then remarked that the points in the case were these: What morbid condition was present? What was its nature and pathology? As regards the condition, it was either some form of tumor involving the uterine walls, hypertrophy, or sub-involution. But the most careful examination revealed no tumor. As regards hypertrophy, in his opinion it was only a form of chronic inflammation, and was always attended with morbid sensibility and induration, and that it could never, according to his observation, result in so great an increase of the bulk of the uterus as was present in this case. Therefore this was not a case of hypertrophy or tumor, but one of sub-involution. The doctor then remarked that after child-birth the uterus generally returns in a few weeks to its normal size and condition, and that the process by which this is accomplished may be described as one of physiological atrophy, the muscular contractions producing a diminution of the blood supply, which is followed by atrophy; but sometimes this process is interrupted from various causes, and involution, which is essential to the health and tone of the woman, is incomplete, and, as a result, we have that morbid state known as sub-involution, when the organ is large, soft, flabby, and without morbid sensibility. His case presented two circumstances of special note, viz.: The great bulk of the organ and the length of time during which this state must have existed. The treatment adopted was ext. ergot fld. 20 M; ext. nux vom. fld. 2 M, three times a day for many weeks; at the same time the uterus was supported by a Hodge pessary and astringent vaginal injections were used daily. As a result, there has been rather slow but steady improvement, and the uterus now measures three inches, and is of normal firmness, and occupies nearly its proper place in the pelvis, menstruation is regular, and the patient's general condition much improved.

Dr. Brady thought the length of time this sub-involution existed after parturition extraordinary, and would ask the doctor if she had hemorrhage all the time since her confinement, to which the doctor replied that her menses were irregular, and at times amounted to flooding. The doctor (Dr. Brady) also believed that ergot and tonics were the best remedies to employ in such cases.

Dr. Shepard never saw a case where the process was so slow. He believed the treatment adopted was proper, but that the old opinion of hypertrophy being due to chronic inflammation was now discarded, and the term hyperplasia used to denote that it is a multiplication of the cell tissues of the organ. Chronic inflammation of the womb, he believed, was very rare, and when it did occur the enlargement was not very great, and in his opinion the process by which the uterus returns to its former size after labor is fatty degeneration.

Dr. Edie was of the opinion that subacute inflammation was sometimes a cause of hypertrophy, and that hypertrophy was an increase of the tissue elements of the part, while enlargement from inflammation might be due to congestion, etc.

Dr. Brady then asked the doctor (Johnson) if his patient, since her confinement, suffered any pain, or if she became debilitated and emaciated, to which he replied that she never suffered acute pain, but complained of a sense of weight on standing; that she was always fleshy—so much so that the uterus could not be felt or measured, except by the sound. She was not what you might call a strong woman.

Dr. Johnson, in answer to the president about hypertrophy, said that he only used the term as a diagnosis, and that he always thought hypertrophy could not exist without the organ becoming hard and sensitive. In this case there was no induration or morbid sensibility. In answer to Dr. Brady, whether there was any discharge, he replied that there was a constant leucorrhea, which he regarded as vaginal. Dr. Shepard thought there was a difference in females—some were stout, while others were soft and flabby, like dough, and to this last class he thought the case reported belonged; and it was his opinion that the discharge was from the uterus, and not from the vagina; that in all cases of enlargement of the uterus the discharge is generally cervical, while vaginal discharges are generally specific. Dr. Chipman was of the opinion that falling of the womb would produce leucorrhea. Dr. Johnson said he agreed with Dr. Brady, that his case was an extraordinary one in regard to the length of time; she was suffering all this time, as the symptoms show, and, in his opinion, would have been suffering yet, had she not applied for treatment.

Dr. Shepard reported, at a meeting of society, April 9th, 1878, a case of ovarian tumor, removed by abdominal section, April 9th, 1878, from Mrs. B., aged 33, mother of four children, the youngest five years old; has not been pregnant since; has menstruated regularly for the last four years; considered herself well until about twenty months ago, when she noticed a small tumor in the left iliac region, which continued to grow slowly up to the day of the operation. The sack, with its contents, weighed thirteen pounds. The tumor extended from below the pelvic bones to three inches above the umbilicus. It was most prominent on the left side, presenting an irregularity of surface which, together with an indistinct sense of fluctuation, gave the impression that the tumor was multilocular, which an examination proved to be true. The tumor gave her no inconvenience until the last three or four months, during which time she has had much difficulty and pain in voiding urine, and her general health was becoming impaired. The trouble in urinating was caused by a portion of the tumor which was crowded down into the pelvis, carrying the bladder before it, and crowding the womb backwards and downwards. After explaining to her the general results of letting such [tumors alone and removing them by operation, she decided to have it removed, which the doctor did, in the following manner: An incision two and one-half inches long, was made in the abdominal walls in the mesial line down to the peritoneal membrane, then a small opening was made in the peritoneum, into which a sound was introduced and swept around the tumor in all directions, meeting with an obstruction in the right inguinal region, which proved to be the pedicle. All bleeding from the external wound being suppressed, the opening in the peritoneum was enlarged to the size of the external opening. The cyst was then seized with a volsella, and a trocar introduced, the contents of the larger cysts evacuated, and the whole then drawn out through the opening, and the pedicle (which was long) was secured with a double ligature, and tied upon both sides. The ligatures were brought out at the lower angle of the incision, and the opening closed with interrupted sutures of fine silk. A small pledget of cotton, moistened with a weak solution of carbolic acid, was placed over the wound, and the whole abdomen covered with a roll of fine cotton, secured with a flannel bandage. She was then put to bed; a dose of morphine given; pulse eighty per minute, and of good volume, and the doctor expressed his opinion that she will recover. In answer to what anæsthetic he employed, he said ether, as it was generally considered safer than chloroform.

Report of Two Cases of Pus in the Abdominal Cavity, with Remarks.

BY T. N. REYNOLDS, M. D., DETROIT, MICH.

CASE I.—Ida Nelson, of Oakland, Mich., aged nine years, who was spoken of as never having been a very well child, was taken on November 27, 1874, with diarrhea, abdominal tenderness, not much pain, a good deal of fever, loss of appetite, and considerable prostration. She remained in about that way for four days when abdominal tympanites and considerable delirium were added. In four days more the delirium, prostration, and general cachexia had so steadily increased that a fatal termination seemed probable.

Up to this time the diarrhea continued about the same and there remained some tympanites; but there was not much pain or soreness. The child could be moved to almost any position and was always placed in the sitting posture when the bowels were to move. Quite soon, however, all the above symptoms began to disappear and she improved so far that I discontinued seeing her on the 10th of December.

In a few weeks her father called and said he thought she was getting dropsy. I heard nothing more of it till February 21, 1875. I then found they had called Dr. Tillson, of Romeo, some time before, but thinking treatment, perhaps, of no use, had discontinued with him for about a week.

I learned that the difficulty in breathing had increased more rapidly in the last week, and it was then quite urgent. Had not lain down at all in consequence for some time. Her appearance was sufficient to arrest one's attention as being unusual for simple dropsy. There was, in addition to the embarrassed respiration, a clear white skin, with hectic flush, and extreme emaciation; and, while the abdomen was uniformly very much distended, there was no œdema anywhere. The extreme smallness of the thighs, therefore, and the skinny chest, contrasted with the large abdomen and made her appearance striking. But it was not now difficult to make the diagnosis of pus in the peritoneal cavity; for, in addition to the hectic appearance, there was fluctuation immediately below the umbilicus which plainly seemed to communicate with the cavity. I therefore made a free incision just below the umbilicus, and an immense quantity of ordinary looking pus was expelled, at first with great force. I then put one end of a strip of cotton cloth in the opening, and it remained patent till the discharge entirely ceased, which was about the middle of March. My brothers at Orion tell me that she has been in good health ever since, which is now a little over three years.

Case II.—Priscilla C., of Oxford, Mich., aged 16 years, was taken on March 3, 1875, during first day of menstrual period, with pain and soreness in abdominal region, accompanied with loss of appetite, fever, and an arrest of the menstrual flow.

For two or three days she grew worse and her general appearance presented some gravity. The abdominal symptoms, however, were not urgent. There was constipation from the first, little or no tympanites, not much abdominal pain, and she could be moved very well.

On the 12th of March the general grave appearance had very much passed away. There was a very large abscess in the posterior part of the pharynx which she had not noticed at all till within the previous thirty-six hours; and then only from its inconvenience in speaking and swallowing. I punctured it, it emptied itself and gave no more trouble. In four days more she was so improved that I discontinued visiting her.

March 30th, was called and found considerable fluid in abdominal cavity, and some œdema of feet and ankles. She was somewhat thin in flesh and had a well marked hectic flush on both cheeks, but was being about the house all day, occasionally reclining a while, but not feeling very sick.

Being fresh from case No. 1, and seeing the fair skin and hectic flush again following the inflammation, I thought quite a little that the abdominal fluid might be pus. I waited, however, till April 17th, when the distension was so increased that tapping was imperative. It was not yet so as to interfere with respiration. She had no pain, and was not obliged to keep her bed; but she was quite emaciated and her appearance hectic.

I used a large trocar and cannula and obtained about half a pailful of pus. Tied the cannula in, and pus was drained away through it for three or four days, when it fell out and opening closed. On April 29th, quite a little having accumulated, I tapped her again and tied the cannula as before. It soon fell out, however, and the filling went on, though this time very slowly. Tapped her again on May 21st. Kept the opening patent for a time, but the discharge soon ceased and did not again return.

When the discharge ceased the anterior curvature of spine from adhesions and contractions was quite striking. The upper part of the spine was at about a right angle with the lower extremities when she stood or walked.

Ordered liberal frictions with oily liniments to the abdomen, and persistent efforts to straighten herself as much as possible at all times.

By the autumn of that year she became perfectly straight and perfectly well, and I learn has enjoyed good health ever since, having taught school most of the time.

In case No. 1, the primary trouble was probably enteritis, which extended through the connective tissue to the peritoneal covering of the small intestine, producing there an asthenic circumscribed peritonitis. The system of the child being in a somewhat depraved condition, the inflammatory products there were converted into pus, the cells of which divided and multiplied themselves till the peritoneal cavity was full; or the inflamed portion of peritoneum may have become a suppurating surface, or perhaps both conditions combined to produce the pus in such abundance.

It does not seem likely that the parietal and remaining portions of the peritoneum were inflamed at all; either primarily, or afterwards from the presence of the pus; for there was not at any time sufficient pain or soreness to convey that idea very forcibly, and there was no evidence of any considerable adhesions at the final recovery.

In case No. 2 the constipation of the bowels would lead one away from the idea of enteritis; and in the absence of any but slight pain and soreness, of tympanites; and of that extremely anxious and overwhelmed expression characteristic of general peritonitis, one would not think that affection probable.

From the coincidence of the sudden cessation of the menstrual flow and the commencement of the attack, with the symptoms all as they were, pelvic peritonitis would seem most likely to have been the affection.

I made no vaginal examinations, but it is not likely that metritis preceded or excited the peritoneal affection, or that it existed at all. Think it more likely that the shock from cold, or from whatever was the exciting cause, simply suppressed the flow and lit up the pelvic peritonitis coincidently.

There must have been here, as in case No. 1, a marked pyogenic condition of body at the time of the outbreak, as evidenced somewhat by the rapid and large formation of matter in the submucous tissue of the pharynx at the time, as well as by the large collection found afterwards in the cavity of the abdomen.

From the evident adhesions it would seem that there was in this case an inflammation of opposite portions of peritoneum that did not exist in case No. 1, and perhaps a greater inherent tendency to fibrinous organization in the inflammatory products effused.

Aphasia—A Case Reported to Washtenaw County Medical Society.

BY DR. BREAKEY, ANN ARBOR, MICH.

This case is of interest in connection with the question of localization of cerebral functions, to which so much attenhas been given of late, both by physiologists and pathologists. He stated that he had been prevented by lack of time from giving an intended *resume* of the conclusions of some recent researches on the subject by Ferrin, Charcot, Bartholow, Broadbent and others—the latter a valuable summary read before the International Congress, in Geneva, 1877—and would relate the history of the case without further comment.

Mrs. ———, age 73, spare habit, has suffered for several years from sudden attacks of heart disease, which had been diagnosticated as due to valvular lesion of left side of heart. She had some rheumatism during winter. Several years previously she had a sudden attack of aphasia with other functional disturbance of brain from which she slowly recovered. She was seen at that time by the late Dr. Crosby. On the 20th of February she was suddenly attacked with pain, dizziness and distress in her head while at the tea-table, walked to her room without help, partially fainted, and soon was unable to talk coherently, or even to speak more than a word or two, and those of only one or two syllables. Her temperature in a few hours ran up to 102½, pulse feeble and frequent, but regular with dyspnœa and much general debility. There was at this time not so much hebetude as a confusion of ideas and a jumble of words or sounds, the failure of which to express any rational thought, she seemed to be painfully and impatiently aware of. These symptoms, with varying conditions, continued for several days, but in the aggregate she improved so that in a week she could utter sentences of several words. There was a singular conjunction and alternation of apoplectic symptoms and tendency to syncope. The former due apparently to a recurrence or aggregation of conditions present in the beginning of attack, and relieved by sedatives and cold applications to head.

On the 28th the temperature rose to 104, followed by coma, but next day her mind had cleared up. She recognized her friends and was able to talk better than at any time since the attack came on, and save being weak and showing a marked fall of temperature she seemed better. She objected to using a bed pan, and persisted in getting out of bed to use a chamber vessel contrary to repeated advice and warning, and the following morning, immediately after getting back in bed from being up for such a purpose, died very suddenly, evidently from syncope. There was no paralysis of motion or sensation.

Hartshorne says, "Hemiplegia of right side has in a number of examples coincided with aphasia, and autopsy has shown softening or other lesion of left anterior portion of cerebrum. On the strength of these facts a hypothesis has been based, that the site of the faculty of language is in the anterior frontal convolutions of the left hemisphere of the cerebrum. This is a very unphysiological supposition in view of the symmetry of the crebro-spinal axis throughout. Nor does it disappear upon the conjecture that the 'organ' upon the right side may exist always in an undeveloped state. *Valvular lesion of the heart sometimes accompanies the disease.*"

The case is reported to suggest the inquiry whether, instead of accompanying only, it does not in such cases precede and primarily cause aphasia by embolism from detached coagula or vegetations drifting into cerebral arteries. The treatment was directed to such a diagnosis in this case, but unfortunately no *post-mortem* was had to determine its correctness. The recovery from a former attack without mental impairment as also the relief afforded by sedative treatment contra-indicate softening.

Reports of Societies.

Michigan State Medical Society.—Thirteenth Annual Meeting.

REPORTED FOR THE DETROIT LANCET, BY DR. THEO. F. KERR.

LANSING, May 15, 1878.

WEDNESDAY—MORNING SESSION.

The Society met in the Senate Chamber of the old Capitol, and was called to order at 10.30, by the President, Dr. Foster Pratt. Prayer was offered by the Rev. G. B. Stocking. Dr. Ranney then delivered the following

ADDRESS OF WELCOME.

MR. PRESIDENT, AND MEMBERS OF THE MICHIGAN STATE MEDICAL SOCIETY—In behalf of the physicians and citizens of Lansing, I welcome you with kind and cordial words, with an open hand and kindly heart, to the precincts of our city. It is a pleasure to welcome accomplished and faithful physicians and surgeons, who, while worthy to stand guard over the sacred citadel that enshrines a fellow-being's life, are instructing the people in the means of avoiding the enemies of health and longevity, and who, like true physicians, rise above the mere practitioner and become benefactors by elevating mankind to an appreciation of scientific knowledge and rational medicine. Did the time and occasion permit, I would fain speak at length concerning the work this society has accomplished since its organization in 1866. Suffice it to say that it has grown to be large and strong, and is now an acknowledged power in the

State. Its committees have gone into school-rooms, workshops and prisons, and borne testimony against crowded rooms, fetid atmosphere and other unsanitary conditions. They have insisted that in all God's universe there is no *elixir vitæ* but his own free air, and declared, in the name of science, that drugs and lotions are not antidotes to poisonous gases, sewage and contagion when taken into the system. The State Board of Health, composed principally of medical men, and worthy examples of their calling, aided in their work by the profession throughout the State, and largely by members of this society, are rendering invaluable service to the people of Michigan without reward, except the priceless compensation to members of a liberal profession, that of duties nobly done. This association has ever had in view the interests of the people, and the profession should be to the medical men of Michigan what the great sympathetic nerve is to the various parts of organic life. What is felt by one is thus felt by all, and whether healthy or deleterious causes affect the condition of a part, it is enjoyed or suffered by all the rest. We hope and trust it will continue to cultivate that law of "remote sympathy" which will reach every physician in the State, however distant, who may rise to the dignity of his calling, and who seeks to advance it, and cause him to feel that he is but part of a common whole.

"Much like a subtle spider which doth sit,
In middle of her web, which spreadeth wide,
If aught do touch the utmost thread of it,
She instantly feels it on every side."

For the reasons I have mentioned, and for many others, we welcome you and hail your coming—repeat the welcome and bid you a hearty brotherly God-speed in promoting the objects that have called you together.

Roll-call was next in order, at which about fifty members responded to their names.

The Secretary then read the following statement, which was laid over to the order of miscellaneous business:

Mr. President—In calling the roll I have not called the name of Dr. Hauxhurst, who was recommended for membership at the last annual meeting of this society, but who failed to complete his membership by signing the constitution and by-laws, and paying his initiation fees and dues.

It is due Dr. Hauxhurst, however, to say that he applied to complete his membership on the 23rd day of last month. I declined to decide the question of his right to complete his membership after the lapse of eleven months, by receiving his fees and presenting him the Constitution and By-laws, for his signature. I shrank from the responsibility of deciding the question, for the following reasons:

First. In 1872, at the annual meeting at Grand Rapids, the society signified its willingness, by a vote, to make two certain physicians members of this society. It became necessary, however, for them to leave the meeting before an opportunity occurred for them to complete their membership by signing the Constitution and By-laws, and paying their initiation fees and dues. This fact was explained by Dr. Brodie, then one of the committee on admissions, and on his motion it was resolved by the society that these gentlemen could complete their membership by remitting their initiation fees and dues, and authorizing the Recording Secretary to append their names to the Constitution and By-laws. Dr. Chester, of Cedar Springs, one of the gentlemen above referred to, completed his membership in accordance with said resolution. The other gentleman has not remitted to me his fees, or communicated with me on the subject, and I suggest that it may be well for the society to instruct the Recording Secretary what his duty would be in case he hereafter offers to complete his membership according to the terms of the resolution, notwithstanding the delay on his part.

Second. The question involved seemed in that instance of sufficient importance to require this resolution, instructing the recording secretary, and I regarded it a negative rule against my receiving the fees from Dr. Hauxhurst, in the absence of special instructions from the society. Then, after the lapse of eleven months, to have received his fees, would involve the necessity of my deciding whether or not dues for 1877 should be required of Dr. Hauxhurst, while the fact existed that he was not a member that year.

I told Dr. Hauxhurst I would make this explanation to the society, and hoped that his rights in the matter would not be impaired during the twenty-two days that would elapse before this meeting, and Dr. H. had the kindness to state that he thought I had very correct views of my duties as Secretary.

I come to the society to ask instructions in this matter, as I told Dr. H. I would. I have not arrogated to myself the right to decide, and respectfully submit the matter for the consideration of the society.

The question involved, however, immediately recurred when the adoption of the minutes of the last meeting as printed was moved by Dr. Dunster.

Dr. Beech moved to correct by adding to the list of members elected at the last annual meeting the names of Dr. Hauxhurst, Battle Creek, and Dr. Lindsay, Battle Creek.

As Dr. Hauxhurst is a graduate of the Michigan University class of 1877, a sharp debate arose, those favoring the admission of university graduates claiming that the correction should be made, and those opposed taking the opposite ground. The matter was finally compromised by instructing the Secretary to insert the clause: "The following named gentlemen were elected members, and completed their membership by signing the Constitution and By-laws and paying their dues." The minutes as corrected were then adopted without reading.

The president announced as temporary members of the Committee on Admissions Drs. Batwell and Tupper in place of Drs. Brownell and Barnum, absent.

About twenty applications for membership were next received and referred to the Committee on Nominations.

Some further miscellaneous business having been transacted, the Secretary, Dr. Ranney, read the following note, and asked the instruction of the society concerning it:

"*Dr. Geo. E. Ranney*—I now present myself and desire to complete my membership in the Michigan State Medical Society by payment of dues and signing the Constitution and By-Laws. D. C. HAUXHURST."

Dr. Beech moved that the Secretary be instructed to receive the dues and allow Dr. Hauxhurst to sign the Constitution.

Dr Jerome moved to refer the question to the Committee on Admissions.

Again the keen weapons of polemics were drawn, and the champions of either side did battle for more than half an hour before a vote was finally reached. Then it stood 28 to 22 for the motion to refer, and the University party had to acknowledge their defeat.

Dr. Dunster then immediately submitted the following proposed amendment, more clearly defining the admission of members, which, under the rules, was laid on the table for one year:

Art. IV, Sec. 2. Add the words, "In case, however, these requirements be not complied with within two years from the date of election, said election shall be void."

A communication was received from the Berrien County Medical Society requesting the State Society to consider some means for "protecting the people against the practice of medicine and surgery by unqualified men." Referred to the Executive Committee.

AFTERNOON SESSION.

2 P. M.

Roll-call showed a largely increased attendance.

The names of another score of applicants were received and referred to the appropriate committee.

The Committee on Publication reported the printing of 700 copies of the transactions for the year 1877 at a cost of $240.82. Accepted and referred to the Finance Committee.

The report of the secretary showed that there were 238 members in good standing exclusive of those elected at this meeting.

Two deaths have occurred—Dr. Sager, of Ann Arbor, and Dr. Leete, of Romeo, both honorary members.

Of the transactions printed copies had been sent to members in good standing, to prominent members of the profession outside the State, to publishers, to insurance companies, etc., and there were still a large number of copies on hand.

There had been

Collected for dues		$281 00
Paid Treasurer		263 00
Balance		$18 00
The Secretary had expended	$33 05	
Less balance held	18 00	
Balance due Secretary	$15 05	$15 05

Accepted and referred to the Finance Committee.

The Treasurer's report showed for the year:

Total receipts	$521 51
Total expenditures	361 45
Balance	$160 06

Accepted and referred to the Finance Committee.

The first report of the Committee on Admissions was here made, and was accepted and adopted, electing the following candidates to membership:

R. C. Hutton, Howell.
A. F. Kinne, Ypsilanti.
S. J. Koon, Lisbon.
C. M. Martin, Greenville.
J. C. Drake, Oakley.
Jno. D. Bowman, Millbury.
S. S. Messenger, Grand Rapids.
Henry Case, St. Charles.
H. W. Longyear, Detroit.
W. B. Sprague, Battle Creek.
H. H. Cooke, Mason.
J. L. Valade, Newport.
Amy G. Kimball, Jackson.
A. Blanck, Howell.
Thos. A. Kay, Woodhull.
J. T. Hollister, Laingsburg.
J. S. North, Lansing.
C. H. Sackrider, Mason.
D. A. McLean, Stanton.

The balance of the afternoon until four o'clock was taken up with the reading and discussion of papers. At the latter hour the society adjourned and visited the new Capitol in a body, spending another hour in wandering through its halls and corridors, and inspecting its architecture or other matters of interest.

EVENING SESSION.

7.30 P. M.

Vice-President White occupied the chair.

The entire session was devoted to the President's address, "Medical Jurisprudence as Related to Insanity;" and at its close 2,000 copies in pamphlet form were ordered printed for general distribution to the profession and the secular press. The address was a masterly effort and worthy of the author who penned it.

After the address a reception was held at the Lansing House, tendered by the ladies of the city, which was a very pleasant affair.

At the banquet which followed about 150 persons sat down, and festivities were kept up to a late, or rather early hour.

THURSDAY—MORNING SESSION.

9.30 A. M.

President Pratt in the chair.

Another large list of applicants for membership was received and referred.

By request of the Executive Committee the communication from Berrien County was referred to a special committee, consisting of Drs. Briggs, Bowman and Woodman.

The Publication Committee stated that 2,000 copies of the President's address could be printed by W. S. George & Co. for $60, provided they printed the transactions and could use the same forms in both cases.

The following papers were then read and discussed:

"Medical Education," Dr. Reynolds, Detroit.

"Herpetic and Eczematous Eruptions in the Etiology of Chronic Nasal Catarrh," Dr. Shurly, Detroit.

"Asthenopia," Dr. E. Smith, Detroit.

Dr. Beech, Coldwater, introduced the following resolutions, and spoke strongly in favor or their adoption:

Resolved, That the frequent occurrence of homicide and suicide by persons who had previously exhibited more or less evidence of mental aberration calls for more stringent regulations in regard to the care of such persons, and protection of themselves and the unwary from their irresponsible acts.

Resolved, That the medical profession, as individuals, coming more frequently than other citizens to early knowledge of mental wanderings, are morally responsible for every neglect to give warning of danger, and should in no case allow the pride or influence of friends to prevent timely public admonition and control.

Resolved, That while it is of great importance that the laws protect every rational human being in their freedom, liberty and rights, untrammeled by the caprice, avarice or misjudgment of others, it is equally important that the law should not be clothed with terrors of prosecution for errors committed without malice or foul craft, to a degree which may deter conscientious men from duty in regard to the care of persons of doubtful sanity.

Resolved, That this society hereby call the attention of the Michigan State Board of Health to this subject, and do recommend that it warn the public of the frequent danger of retaining partially insane friends at their homes, and give to the public clear views of the hope of recovery by early treatment in proper institutions.

Drs. French and Cox also spoke in favor of the resolutions, and they were finally ordered printed with the president's address.

THE UNIVERSITY QUESTION.

At this juncture Dr. Jerome moved to take up the resolution for an amendment to the constitution, changing the section relating to members, so as to make it read as follows:

"That no person shall be admitted to membership who practices or professes to practice in accordance with any so-called "pathy" or sectarian school of medicine, or who has recently graduated from a medical school whose professors teach, or assist in teaching, those who propose to graduate in or practice irregular medicine."

This resolution was proposed at the meeting in 1876, laid over till last year, and again laid over till this year.

A long and in some respects bitter and personal debate followed; but it is not our purpose to give even a synopsis of what was said on both sides. The old ground was fought over and at some points bitterly contested, and it was with a feeling of relief that the previous question was at last ordered. The yeas and nays were taken with the following result:

Yeas—Z. D. Bowman, Z. C. Drake, A. Lunner, W. E. Decker, J. S. North, F. D. Porter, W. J. Chaney, Frank Merritt, J. B. Park, C. W. Backus, H. B. Baker, H. B. Barnes, I. H. Bartholomew, E. Batwell, J. A. Brown, J. H. Carstens, Gordon Cheltock, H. A. Cleland, L. Connor, C. A. Hayden, A. S. Heaton, I. H. Jerome, G. K. Johnson, D. B. Kilpatrick, O. C. Gou, J. D. North, F. M. Oakley, F. K. Owen, Foster Pratt, Geo. E. Ranney, E. L. Shurly, E. Smith, J. R. Thomas, Geo. W. Topping, H. Tupper, H. J. Turner, E. Twiss, E. B. Ward, Jas. H. Wellings, J. B. White—40.

Nays—S. G. Koon, A. F. Kinne, C. M. Martin, W. Z. Fairfield, O. P. Eaton, Amos Crosby, H. H. Cook, A. G. Kimball, A. Nash, Thos. A. Kay, G. W. Banks, C. V. Beebe, J. H. Beeck, J. H. Bennett, Thos. S. Briggs, Wm. Brodie, J. E. Brown, W. Byrns, W. W. Campbell, E. Cox, D. E. Dakin, S. Dubois, E. B. Dunning, E. S. Dunster, L. A. Foote, S. S. French, C. George, W. R. Gifford, R. D. Glasgow, P. L. Green, J. B. Griswold, A. D. Hagadorn, J. W. Hagadorn, J. S. Hamilton, W. J. Herdman, O. E. Herrick, H. O. Hitchcock, Geo. Howell, J. H. Kellogg, Amos Knight, Donald McLean, Hugh McCall, J. T. Main, O. Marshall, R. N. Mussey, Wm. Parmenter, P. D. Patterson, O. S. Phelps, W. W. Root, Chas. Russell, H. B. Shank, R. J. Shank, Cyrus Smith, E. S. Snow, D. C. Spaulding, J. P. Stoddard, L. R. Watkins, A. F. Whelan, J. C. Williams, Wm. H. Young—50.

The following new members were elected:

Thos. N. Reynolds, Detroit.
J. A. Brown, Fowlerville.
A. S. Austin, Fowlerville.
E. L. Kimball, Jackson.
L. Anna Ballard, Lansing.
W. Chaney, Plymouth.
A. Nash, Lapeer.
Tyler Hull, Diamondville.
O. P. Eaton, Detroit.
F. D. Porter, Detroit.
Colin McCormick, Owosso.
N. Bates, Flint.
Wm. E. Dockery, Pentwater.
Jno. B. Park, Okemos.
Amos Crosby, Albion.
W. J. Fairchild, Battle Creek.
Col. Bell Burr, Springport.
Frank Merritt, Charlotte.
Jabez Perkins, Owosso.
C. A. Turner, Jackson.

AFTERNOON SESSION.

2.30 P. M.

A communication was received from the Oceana County Medical Society calling attention to the necessity of electing representatives to the Legislature who will favor active measures for the suppression of quackery in the State, and asking the State Society to give their consideration. Referred to the Executive Committee.

On motion, the following Committee on Nominations was named by the President: Drs. Eugene Smith, Hitchcock, Tupper, Stoddard, Bartholomew.

The following gentlemen were elected members on recommendation of the Committee on Admissions, the list including several recent graduates of the University:

W. H. D. Lewis, Houghton, L. S.
Wm. Decker, Ann Arbor.
J. W. Barnard, Ann Arbor.
A. C. Maclean, Ann Arbor.
R. W. Corwin, Ann Arbor.
Geo. B. Ayres, Ann Arbor.
J. Garst, Jackson.
L. G. North, Tecumseh.
W. H. McKenzie, Muir.
C. G. Cruickshank, Howell.
J. M. Lewis, Jackson.
E. C. Palmer, Potterville.
Kate Lundsay, Battle Creek.
H. F. Sigler, Pinckney.
W. J. McHench, Brighton.
J. G. Millspaugh, Battle Creek.
Geo. G. Gordon, Flint.
R. W. Alton, Lansing.

The Committee on Admissions, to whom was referred the request of Dr. Hauxhurst to be allowed to sign the constitution, reported, sustaining Rr. Ranney, Secretary, in the position he had taken, and interpreting the law to require the signature to the constitution and payment of dues before the adjournment of the meeting at which the applicant was elected. To make the matter more definite for the future they submitted the following amendment to Section 2, Article IV, of By-laws.

Every member, on admission, and before the close of the session at which he was admitted, shall pay the sum of two dollars as an initiation fee and sign the constitution and by-laws, nor shall he be entitled to the rights of membership until the same is done. The report was accepted and adopted, the proposed amendment lying over under the rules.

On motion members elected at this meeting, but who had gone home, were allowed one month in which to complete their membership by letter to the secretary.

On motion Drs. Brodie and Hitchcock were elected counsel to defend the Michigan State Medical Society against the charges preferred last year at the meeting of the American Medical Association, and which will come up at the approaching meeting of that body.

On motion all papers read or offered were referred to the Publication Committee "with power," except as regards those already ordered published.

On motion the society proceeded to the election of a president, resulting in the choice of Dr. Edward Cox, Battle Creek, on the first ballot, he receiving 83 out of 102 votes cast.

Dr. E. Twiss read charges against certain members of the medical faculty of the University for "aiding and abetting" in the teaching of homeopathy, etc., which were referred to the Judicial Council.

Three members of the Judicial Council to serve for three years were then balloted for, resulting in the choice of Drs. Parmenter, Kedzie and Whelan.

Dr. Cox, having been chosen President, resigned his positi as member of the Judicial Council, and Dr. Snow was chose in his place.

The Committee on Finance reported the several accounts the Secretary, Treasurer, and Publication Committee as corre Accepted and adopted.

The Committee on Nominations reported as follows:

For Vice Presidents—Drs. Whelan, Thomas, Banks, Du ning.

For Secretary—Dr. Geo. E. Ranney.

For Treasurer—Dr. Geo. W. Topping.

For Delegates to the American Medical Association—

Dr. Dunning, Battle Creek.
Dr. Stoddard, Albion.
Dr. Jerome, Saginaw.
Dr. Johnson, Grand Rapids.
Dr. McCall, Lapeer.
Dr. Chittock, Jackson.
Dr. Patterson, Charlotte.
Dr. Campbell, Mason.
Dr. Cutter, Coldwater.
Dr. Bartholomew, Lansing.
Dr. Barnes, Ionia.
Dr. Topping, Dewitt.
Dr. Kimball, Jackson.
Dr. Murray, Flint.
Dr. French, Battle Creek.
Dr. Thomas, Bay City.
Dr. Snow, Dearborn.
Dr. Sackrider, Mason.
Dr. Kerr, Detroit.
Dr. Reynolds, Detroit.
Dr. Southworth, Monroe.
Dr. Brownell, Utica.
Dr. Brown, Monroe.
Dr. Beebe, Howell.
Dr. Backus, Three Rivers.
Dr. Shephard, Grand Rapids.
Dr. H. E. Smith, Detroit.
Dr. Whelan, Hillsdale.
Dr. Breakey, Ann Arbor.

The report was accepted and adopted.

The Executive Committee was empowered to fill vacanci in the delegation.

The President was authorized to fix the date of the ne meeting of the society.

The charges preferred by Dr. Twiss were referred back their author to receive more definite form.

A vote of thanks was tendered the Board of Health for efficient work in procuring a proper test for illuminating oi and for its general efficiency in working sanitary reform. Votes of thanks were also tendered to the retiring president, and for the various courtesies extended to the society during its sessions, and then came the adjournment *sine die*.

The following is a brief abstract of the papers read before the society and the substance of the remarks made upon them.

Dr. Campbell read a paper upon varicose ulcers, and their treatment by Esmarch bandage. After briefly alluding to the general pathology of the veins, the author reported quite an extensive experience in this class of cases. A number of these cases were given in full, illustrating the great success attending the use of elastic pressure to the affected parts. The conclusion was reached that this mode of treatment was as successful as the use of quinine in intermittent fever. A comparison of this method with that of surgical operation proved to the writer the great superiority of the method. The elastic webbing of Esmarch's bandage is not impervious to moisture, is always elastic, is clean and comfortable.

Dr. Donald McLean approved of the general spirit of the paper, and thought it contained very valuable suggestions. Still in indolent ulcers he obtained excellent effects from the use of blisters. In varicocele he removes a piece of the scrotum, greatly preferring this to a ligature of the scrotal veins.

Dr. Wm. Brodie inquired whether the elastic stocking was used first or the bandage.

Dr. Campbell replied that the bandage was first employed, then the stocking.

Dr. S. P. Duffield read an account of the small-pox epidemic at Dearborn, Mich., 1878. One case seemed to indicate that the doctor had infected the patients by carrying the virus in his hair and beard.

Dr. J. H. Carstens presented a paper on the treatment of scarlet fever by the use of quinine, because he had employed it in a large number of cases with good results. He gave a short account of the pathology of the disease, its pathological anatomy, diagnosis, prognosis, prophylaxis and treatment. Quinine is the remedy for this disease, large doses enough to saturate the system. Cases were detailed illustrating the special method of giving the remedy. The doctor thought that the quinine destroyed the poison that produced the disease.

Dr. Pratt remarked that the death rate could not be used as an argument to test the efficacy of treatment. The same treatment by the same men varied from two to seventy-five per cent, as abundantly proved by illustrative cases.

Dr. Brodie thought that treatment must vary with different years and epidemics. No specific in this disease.

Dr. Mark thinks that quinine mitigates the fever, but does not cure. Have traced the last epidemic in Lapeer to one primary case, and therefore isolation should be efficiently carried out.

Dr. Lovewill thinks that quinine acts as a restorer to lost nerve power, and not as a chemical antidote or poison.

Dr. G. W. Topping read a paper on the use of obstetric forceps in country practice. For the first eight years of his practice he had recorded 153 cases of parturition, in none of which had he used the forceps, but the perforator once. During the last sixteen years of his practice he had recorded 336 cases of parturition, in which he had used the forceps 50 times. In these forceps cases there had not been a maternal death, and only seven fetal deaths. Four of the fetal deaths occurred in cases which were under the care of other physicians during the early or entire course of the labor, and the children were believed to have been dead prior to my trying the forceps. One of the cases was a monstrosity which showed signs of decomposition when born. In the remaining two cases of fetal death the use of the forceps had been long delayed after the commencement of the second stage of labor, and ergot had been given, and the deaths were quite as fairly attributable to protracted compression and the use of ergot as to the use of the forceps. In but one of his forceps cases did he discover any laceration of the perineum, and this occurred before he arrived at the case. This laceration was not sufficient to need any operation.

Dr. T. N. Reynolds read a paper upon the methods of preventing errors and misconceptions among the laity.

Attention was first directed to the routinism and misconceptions respecting medicines which existed in the ranks of the profession. The bearings of these errors, etc., in the profession upon popular prejudice and misconception were clearly pointed out. The removal of all secrecy in medical practice was recommended, including open rather than private consultations. Further popular medical education should be begun in all schools, high and low. Thus, by giving the people the real truths and facts, prejudice and misconception would vanish out of the community. Paper was referred to the Committee on Publication for publication.

Dr. E. L. Shurly read a paper on "Chronic nasal catarrh, caused by eczematous and herpetic eruption." When existing on the Schniderian mucous membrane the same conditions exist as when eczema and herpes occur on the skin. The subjects of this condition have all the characteristics of the "strumous diathesis."

The usual subjective symptoms present in these cases are nasal obstruction, sense of heat, hypersecretion in moderate degree, etc., except that we have superadded generally a greater sense of heat, more persistent sneezing and great itching of the nose, especially if the eruption be of an eczematous character. The secretion also is more apt to be watery than muco-purulent in the herpetic variety.

Regarding the relative frequency of either form of eruption, he regards the herpetic form as predominant, although this point cannot be determined perhaps until a greater number of cases have been observed. The appearance of the mucous membrane is quite characteristic, but can only be well observed through powerful illumination of the nasal cavity by means of a large laryngoscope, aided, perhaps, by a bi-convex lens.

In the earlier stages of the herpetic eruption, patches of intense redness, dotted by a few lighter or darker colored prominent refractive papules, may be seen upon the swollen membrane covering the turbinated bones.

These papules in the course of a day, or perhaps a few hours, appear as whitish macerated dots or shreds of epithelium, while another crop of three, four or more papules rise to assume their places. Sometimes this shreddy appearance continues without giving place to another crop, finally exfoliating to leave a few minute whitish ulcers or abrasions, which may proceed to enlarge a little and then fill up by granulation or remain *in statu quo*. If appropriate treatment be instituted, these papules may not terminate in ulceration, but become quickly covered with epithelium.

This process recurs again and again, thus keeping up a considerable irritation.

In the eczematous form the eruption appears finer at first and soon gives place to minute semi-macereted crusts of yellowish color, which rapidly accumulate in the nasal canals, and toward the exterior assume a more decided yellow color. It is very difficult in this form to see the papular condition or even the fine crusts on the inside of the nares, without a magnifying glass in addition to the strong glass used.

The patches appear very often grayish instead of red, like a patch of mucous membrane which has been touched with lunar caustic. The mucous membrane is less sensitive to the touch than the herpetic form, while the itching and pharyngeal irritation is more marked. Concomitant eruptions of eczema about the nose, face, mouth, ear, or some other part of the surface are always present in this form, while the general condition is always below par, from malarial poisoning, struma, or some other cause. Great loss of substance does not seem to take place generally. The local treatment differs widely from that of ordinary nasal coryza, inasmuch as it must be very mild.

THURSDAY MORNING.

Dr. E. Smith read a suggestive paper on asthenopia. His conclusion respecting treatment was "that whenever there is useful vision within any range for any period, no matter how short, the defect can usually be remedied by optical means, and the patient become so comfortable as almost to forget that he has eyes.

St. Joseph Valley Medical Association.

After the usual routine of society gatherings, the following papers were read and cases reported and discussed:

Dr. I. Keler presented a case of scirrhous enlargement of the right mammary gland. The patient, Mrs Bowen, aged 40, was of scrofulous diathesis, and had incipient tuberculosis; the case elicited considerable discussion, but the universal opinion advised a removal of the gland.

Dr. Clapp presented his wife, who had lost the use of both arms and hands from a severe attack of articular rheumatism, the muscles being slightly atrophied, and joints partially anchylosed. He was advised to use a battery with a continued current and passive motion; Dr. Dayton advised the use of East India camphor moxa along the course of the nerves, and passive motion.

Dr. Sabin read the history of a case of puerperal mania. The patient was the mother of three living children, attacked about six weeks after first confinement, when she had a severe chill. Symptoms of mania then presented themselves for the first time, such as confused memory, pain in the top of head, and symptoms of cerebral disease which continue to the present, though much aggravated at periods after confinement; general health good. From the interesting history given, the opinion was expressed by most of the members that she was suffering from some uterine disturbance, and if that did not exist, that it was disease of the brain—insanity.

Dr. Stewart read an interesting paper, subject, "The Therapeutics of Regimen." At present medical schools, books and periodicals, are teeming with new remedies, new uses for old remedies, and new combinations of both old and new materia medica and pharmancy to such an extent as to embarrass the practitioner in making a proper selection. A careful study of the changes going on in medical education and practice shows that our art is becoming more and more conservative, more and more restorative. We are regarding disease as a mode of *living*, a depressed or undeveloped vitality, not a something *more* but a something *less* than healthy life. The aim and end, then, of a judicious treatment and satisfactory result should be to retain, to restore and to develop into fuller life, the morbid substances and morbid processes, instead of condemning them to expulsion or inactivity. When we are sick,

> "'Tis life of which our limbs are scant,
> Tis life, more life, for which we pant,
> More life, and fuller that we want."

Such an understanding of the nature of diseases justifies and demands a greater anxiety and care for the environment and nourishment of the sick than are commonly accorded them. That diseases would almost cease to exist by proper investigation of causes, diet, etc.

Dr. Trowbridge read an interesting paper on diphtheria and kindred diseases, giving his views of the disease and mode of treatment, drawn from cases coming under his immediate care during a period of almost twenty years. Considers it a miasmatic contagious disease caused by a specific poison entering the system usually by coming in contact with the mucous membrane of the mouth and pharynx. At first a local trouble, extending and becoming general as the poison is multiplied and absorbed, sapping the vital energies of the whole system, or extending, involving so much of mucous surface or membranes of the air passages as to prove fatal by mechanical impediment to respiration, etc. Has had the best results by treating them with a gargle of tincture of iron, one-fourth the usual strength, repeated every two hours, also gargle of bromo-chloralum, comp. of Tilden & Co., one-half strength, repeating several times a day, also inhalations of vapor of lime steam, etc., good nourishing liquid food, and proper ventilation.

Dr. Radley opened the discussion on scarlet fever, and was followed by Dr. Sabin. The discussion was participated in by most of the members present, giving their views of the contagious character of the disease and in its being retained and conveyed in the clothing from family to family.

C. W. BACKUS, *Secretary.*

Calhoun County Medical Society.

BATTLE CREEK, Mich., May 1, 1878.

The Calhoun County Medical Association met at Battle Creek, Mich., on Tuesday, March 5, 1878, at 2 P. M. and 7.30 P. M.

The president, Edward Cox, M. D., in the chair.

Drs. W. B. Sprague and W. J. Fairfield, of Battle Creek, and M. S. Bradley, of Ceresco, were elected members.

Dr. Stoddard, chairman of the Committee on Epidemics and Endemics made the following report (published elsewhere in this issue of the LANCET):

Dr. J. H. Kellogg presented a case of carcinoma of the tongue, which had come under his observation a few days previous. The patient was a young woman of decidedly cachectic appearance. The disease first appeared about two years ago, near the end of the tongue, and spread rapidly upon the right side. Cauteries were applied, checking the progress of the disease for several months. About three months ago, after the occurrence of a miscarriage, the disease increased with great rapidity, and at the time of examination about one-half of the right side of the tongue was involved. There was extensive ulceration and induration. The profuseness of the discharge and its fetid character rendered the patient's condition almost intolerable. Removal by the electro-cautery ecraseur was advised; but upon subsequent examination of the case, after careful cleansing of the mouth, the floor of the mouth and the alveoli were found to be so much involved that it was considered useless to interfere by any operative measure. The patient, who was an inmate of the Sanitarium, was sent home with instructions for the use of palliative remedies.

Dr. J. H. Montgomery exhibited a specimen of scirrhus of pylorus, and gave the following history:

In April, 1877, Mr. C. called on me for professional advice. Said he had been under treatment about a year for dyspepsia, but had received no benefit. Food did not distress him; was constipated; tongue very slightly coated white. At times very much distressed, which would be partially relieved by gaseous eructations; evidently becoming emaciated; very slight tenderness in the epigastric region on pressure. Prescribed mild cathartics, lime-water, milk and quinine, with lacto-peptin. He left soon after this for California, and did not return until November. While there (through the summer) was under the care of a homeopathist; kept steadily failing. On his return told me he had lost sixty pounds in ninety days; could take but very little nourishment, and at times was in great distress. Soon after his return he called my attention to a small tumor, a little to the right and just above the umbilicus. This continued to increase very gradually until it was about the size of a hen's egg. He was visited by a number of physicians at different times, some pronouncing it an enlarged mesenteric gland; one tubercular deposit; another enlargement of the pancreas. Dr. Joy and myself came to the conclusion that it was scirrhous, and therefore gave him no encouragement. He died March 4th; *post-mortem* March 5th. Great emaciation; tumor very distinctly visible. On opening the abdomen the stomach was found enormously distended; the pyloric orifice much lower down than usual; stricture of the transverse colon; hardened fæces in the colon above the stricture. On opening the stomach there was discharged a very large quantity of dark fluid; the pyloric orifice (which I now exhibit to you) very much enlarged and scirrhous.

Dr. J. H. Kellogg exhibited a morbid specimen of some interest, showing carcinoma of the mesenteric glands. The patient, a resident of Missouri, came under observation but a short time previous to his death. He was emaciated to the last degree, and had suffered greatly from indigestion and emesis. Physical examination of the abdomen showed the presence of small nodular masses, which were not painful on pressure. The bowels were quite regular, and the emesis was readily controlled by restricting the diet to concentrated nitrogenous food: as eggs, rare beef, beef tea, and similar articles. The patient had been treated for cancer of the stomach; but this was excluded by the absence of the symptoms characteristic of cancerous disease in that locality. Previous to the *post-mortem* examination a little doubt was felt respecting the exact location of the disease, as the feeling of nodulation was quite obscure; nevertheless it was pronounced a malignant disease involving the nutritive organs located in the abdomen, as the sequel proved. The patient evidently died from inanition, though he continued to take food to the day of his death.

Examination after death showed no organic disease besides the cancerous degeneration of the mesenteric glands, which were all greatly enlarged and indurated. A prepared microscopic section exhibited showed the characteristic cancerous tissue formation.

Society adjourned to meet at 7.30 P. M.

SUBJECT FOR DISCUSSION—SCARLATINA.

The Chairman of the Association called upon Dr. John P. Stoddard, who remarked, that of late he had taken a special interest in this affection, since it had prevailed quite extensively for the past six months in his vicinity, and even in his own family. Since commencing practice he had always dreaded this disease, and fortunately and singularly during more than a decade of years, had seen no epidemic of it.

While in the presence of so many gentlemen grown gray in the active practice of medicine, he felt strongly admonished that he could interest no one in regard to the pathology or treatment of this disease, or offer any new observations on its natural history, but would confine himself to disconnected remarks drawn from his recent experience and reading in regard to the disease now in question.

1st. *His experience had led him to regard it as a highly contagious or infectious affection.* He was aware that formerly, more than at present, very many of the profession considered it only slightly so, and that there are even now practitioners who very much question its infectious character. For his part, he thought the view taken by our State Board of Health in regard to this question, to be the true doctrine, and which should be brought to the knowledge of, and heeded by all of our people. The doctor related at length a number of cases coming under his individual observation, showing the extreme and persistent infectious character of the disease. But he further thought that this affection has laws in regard to its spread, that seem to be peculiar to itself, and not yet well understood. While in some it is extremely infectious, in others it seems only slightly so; and what it is that makes this difference cannot as yet be fully explained.

2d. *He considered it a blood or constitutional disease in a most radical sense.* He believed that further scientific investigation would demonstrate that this was a germ disease, and that it is propagated only by the transplantation from one person to another, of minute vegetable germs or sporules, and that the disturbance of the system, and the accompanying skin disease were nature's method of freeing itself from the engrafted poison, consequently he believed that no known prophylactic medication was of any avail, except such only as tended to raise up and maintain the system at a high standard of health.

3d. As to treatment, we must trust entirely to constitutional tonic remedies, with such modifications as each individual case may call for. His main reliance was on tincture of iron, potash chlorate, quinine, etc. He would religiously avoid the use of cathartics, would examine carefully the urine day by day, and if albumen made its appearance to any extent, would give diaphoretics, enough hydrarg. sub-muriate, with ipecac, to affect the bowels. As a diuretic in this affection, his experience had taught him to place the most reliance upon the supertartrate of potash. If the functions of the kidneys are so interfered with by the disease, that uræmic convulsions take place, in a moderately robust patient should resort to opening a vein, and abstract blood till consciousness returned. He believed it to be the only reliable treatment conjoined with diuretic medication.

Dr. Crosby said: Many cases of scarlet fever in his practice he could trace directly to contagion. There were other cases he was willing to admit that could not be so easily accounted for; but there were many ways in which one might receive the contagium of scarlatina besides the one *direct* from the patient through the medium of the atmosphere. If the various means of conveying the poison of the disease could be scrutinized, there doubtless would be a less number of seemingly spontaneous cases. His treatment consists in the administration of quinine, chlorate of potash and Dover's powders, or small doses of ipecac. Did not like active cathartics. Gives sometimes a mild laxative. Uses for a gargle, when the throat symptoms are not severe, a solution of tannin. He had used, with good results, in cases where there was a diphtheritic exudation, muriated tincture of iron and dilute nitric acid, combined in equal proportions, to be applied with a swab or camel's hair pencil to the fauces once a day, the patient in the meantime to wash out the throat every two or three hours with the tannin solution. In addition to the above he would apply mild counter-irritants externally to the throat, and moderate the fever by frequent spongings with tepid water.

Dr. Cox remarked that he attended the first case of scarlatina that occurred in Calhoun county. The family lived about two miles from town and away from the highway. The question arose in his mind, how did those children catch the disease? These cases and others occurring in his practice led him to believe scarlatina would generate *de novo.* He was strongly of the opinion that scarlatina was a very contagious disease, and the virus retained its power for a very long time.

Dr. Tomlinson agreed with Dr. Cox and others in regard to the contagiousness and treatment of the disease. In albuminuria he gave iodide of potassium, with good results.

Dr. Stoddard spoke of a case without any eruption; but the peculiar sequelæ of scarlatina following, he concluded it to be genuine.

Dr. Stoddard also mentioned a case having the characteristic eruption, but no desquamation, and was satisfied that it was scarlatina.

Dr. Joy was of the opinion that where we got the characteristic eruption it was always followed by desquamation.

Dr. Foote suggested that in such cases the desquamation took place along the intestinal tract.

Dr. D. C. Hauxhurst read a paper on trichinæ (published in the LANCET).

Association adjourned, to meet at Homer, June 25, 1878.

L. A. FOOTE, M. D., *Secretary.*

Correspondence.

A Question of Ethics.

A few minutes before taking the 6 P. M. train at Lansing for Howell, on the first day of the meeting of the Michigan State Medical Society on the 15th inst., which business of importance made necessary, at the urgent request of Dr. Beebe, I signed a slip of paper certifying that charges had been placed in my hands, as secretary of the Livingston County Medical Association, against Dr. W. L. Wells, of Howell, for alleged violations of the code of medical ethics. I think it due to both Dr. Wells and members of the State Medical Society to state that I was not in sympathy with Dr. Beebe in this procedure. I first refused to make such certification, and told Dr. Beebe I would not be a party to his cause against Dr. Wells, as our relations were entirely friendly, and that I did not want to be mixed up in the affair, and would do nothing in the matter that was not strictly my duty officially. Dr. Beebe urged that he had a right to the official statement that said charges had been placed in the secretary's hands. Whereupon without having sufficient time to consider the matter before the departure of the train, I hastily certified to the fact under the momentary impression that I might be chargeable with having suppressed facts, as an officer, which I had no right to do. I have been much dissatisfied with myself for doing this under the circumstances, because of its appearance of unfairness and liability of misinterpretation.

If, instead of holding these charges, dated Dec. 19, 1877, in his own hands until the meeting of the State Society on the 15th inst., Dr. Beebe had presented them personally at either of the two regular meetings of the Livingston County Society, held since the date of these charges, it would have addressed itself to my judgment as the more appropriate course, and would have relieved all concerned in the transaction of a too apparent want of ingenuousness.

R. C. HUTTON.

HOWELL, May 22, 1878.

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

CATARRHAL PNEUMONIA.—J. H. Tyndall, M. D. (*Medical and Surgical Journal*, March, 1878), thus defines catarrhal pneumonia: "A capillary bronchitis (so-called bronchiolitis) in which the mucous and purulent secretion of the bronchi is transferred by respiration and gravitation to a number of alveolar obuli, causing the lung to participate by collateral œdema, ocal emphysema, atelectasis and hyperæmia."

Of the prognosis in this formidable disease, the doctor says he factors which should govern it, are:

1. The more acutely a catarrhal pneumonia runs its course, he less the danger of an unfavorable termination.
2. The younger the patient in the number of years preceding he age of puberty, the greater the danger to life.
3. The danger to life is in exact proportion to the extent of e pneumonic process.
4. Any reduction in the general resisting power of the patient reases the danger to life.

RHEUMATOID ARTHRITIS.—J. M. Da Costa, M. D. (*Philadelphia Medical Times*, March, 1878), thus notes the distinction between rheumatism and the above mentioned affection. Another name is rheumatic gout.

1. The disease begins slowly. There is no acute seizure.

2. The disease attacks the small joints, but may extend to the large joints late in the progress of the case.

3. There is an absence of febrile symptoms. The heart is sound. The joint lesion becomes permanent, the enlargement being an ivory-like degeneration. The doctor would have greater air space in sleeping rooms; would not paint walls to close up—if it were possible—every chance for air to enter the room; would not put on too many weather-strips; in fact, would give as much chance for ventilation as is at all consistent with comfort. He would by these means prevent the accumulation of the dried organic products of respiration, and prevent, consequently, their inhalation. These measures are, of course, prophylactic.

FOUL AIR AND CONSUMPTION.—R. B. Davy, M. D. (*Cincinnati Lancet and Observer*, March, 1878), after premising that two-sevenths of those who die are carried off by tubercular consumption, shows that bad ventilation is accountable, both directly and indirectly, for this dreaded disease. In his opinion it is not the carbonic acid that causes the air to be so much vitiated. It is the organic exhalations of the body that make the mischief.

THE GLYCOGENIC FUNCTION OF THE LIVER IN ITS RELATION TO BRIGHT'S DISEASE OF THE KIDNEYS.—Gouverneur M. Smith, M. D. (*American Journal of Medical Sciences*, April, 1878), shows that a disturbance of the sugar-producing power, or function of the liver, may reduce the animal heat, thus causing a man to suffer very much as he would if he were exposed to the vicissitudes of a rough and cold climate, thereby inducing chronic congestion of the kidney, and consequently, in some subjects, structural lesions, which constitute Bright's disease.

Charles H. Hall, M. D. (*Southern Medical Record*, April, 1878), recommends bichloride of mercury in the treatment of chronic dysentery. He gives it in doses as small as $\frac{1}{32}$ of a grain repeated three or four times a day, and, as he claims, with unusual success.

Rational Treatment of Lead Poisoning.—George Hay, M. D. (*Philadelphia Medical Times*, March, 1878), objects to the exhibition of potassium iodide in cases of chronic lead poisoning, on the ground that the iodide of lead is more insoluble than the chloride of the same metal. Preferably he would exhibit sodium chloride in drachm doses, three times a day, because, as he says, the kidneys eliminate the chloride of lead freely or an oxide of lead dissolved in a solution of a chloride.

Is Phthisis Pulmonalis Contagious?—W. H. Webb, M. D. (*American Journal of Medical Sciences*, April, 1878), seems to prove by a number of cases that have come under his own observation, and that of such men as Prof. Alfred Stillé, Prof. J. M. Da Costa, and others, that phthisis is communicable under circumstances of close intimacy, *e. g.*, the intimate relation of husband and wife. The disease seems to be communicated by means of the exhalations from the lungs. More particularly during the advanced stages of the disease in question.

Mustard Baths in Pneumonia of Children.—Leonard Weber, M. D. (*American Journal of Obstetrics*, April, 1878), claims great value in hot mustard baths as a means of saving life in the pneumonia of children. He uses the bath at a temperature of 105 deg., and adds a pound of mustard to a small tub of water. The effect is to improve the respiration, and stimulate the nerves to aid in the expectoration of the mucus.

Delafield's Studies in Pathological Anatomy for May begins the consideration of empyemas. The illustrations and text fully equal that of the preceding issues, and are in all respects of great excellence.

Pathology.

Symptoms of General Paralysis.—D. A. Morse, M. D. (*Cincinnati Lancet and Observer*, March, 1878), in a review of the current literature of nervous disorders and insanity, concludes that the symptoms of general paralysis are psychical and motor, and that the psychical symptoms appear first in order. Soon after the psychical symptoms appear, the motor symptoms declare themselves, and both advance together, though perhaps at different rates and in different combinations. The doctor thus enumerates the psychical symptoms:

1. General restlessness and unsteadiness of mind, with impairment of attention alternating with apathy and drowsiness.

2. A change in disposition and temper, and a general loss of self-restraint, at first as regards trivial social observances and then as regards general conduct.

3. Impairment of the reflective powers, so that there is no logical and systematic development of thought.

4. General exaltation of thought, with a profusion of remembered images and ideas, and numerous extravagant desires.

5. Failure of memory and forgetfulness, first of words and then of events.

6. Delirious conceptions and the transformation of desires into beliefs, these being generally connected with personal greatness and power.

7. Hallucinations of the senses in which remembered sense impressions are so vivid and intense as to spread to the periphery.

8. Maniacal restlessness and excitement, in which present impulses and feelings instantly pass over into action.

9. Increased mental weakness, with the incoherent and fragmentary repetition of the false ideas previously entertained.

10. Failure of the senses, with more marked impairment of memory.

11. Complete fatuity, passing into coma and death.

The motor symptoms of general paralysis the doctor enumerates as follows:

1. Persistent contraction of the occipito-frontalis muscle and some dilation of the pupils, causing the eyes to be widely opened and the forehead wrinkled, and giving an expression of surprised attention to the face.

2. Persistent contraction and frequent tremors of the zygomatic muscles, giving a pleased and benevolent expression to the countenance.

3. Slight muscular restlessness and unsteadiness.

4. Impairment of the power of executing fine and detailed movements, so that manipulative skill is lost while movements *en masse* are still well performed.

5. Fibrillar tremors of the tongue, and some loss of control over its movements, so that it is protruded with difficulty, is rolled about where protruded, and is suddenly withdrawn.

6. Twitchings of the nostrils and upper lip, with frequent tremors of the latter.

7. Impairment of articulation, which is thick and wanting in distinctness.

8. An alteration in the voice, as well as thickness and hesitancy in speech.

9. Loss of control over the combined movements of the hand and wrist, so that the handwriting greatly deteriorates.

10. Changes in the pupils, which are at first irregularly contracted and then become irregularly dilated.

11. An alteration in gait, which becomes unsteady, the more complex movements of the thigh, leg and foot, and the balancing of the pelvis on the hip joints being performed with difficulty.

12. General muscular agitation and restlessness.

13. Gradual loss of power in the muscles of the face and tongue, neck and limbs.

14. Spasmodic contraction of the masseter muscles, causing grinding of the teeth.

15. Convulsive seizures, most marked on one side of the body and followed by transitory hemiplegia.

16. Loss of control over the sphincters.

17. Complete prostration of muscular strength, and helpless and difficult deglutition.

18. Contractions of the muscles of the limbs and paralysis of the muscles of respiration. .

The psychical symptoms enumerated unmistakably point to the primary involvement of the frontal lobes, which have been fixed upon by Ferrier as the centers of attention and of the intellectual and reflective faculties, and where adhesions are numerous and constant in general paralysis.

It is difficult to locate the origin of the motor troubles. Most reasonably the whole system of nerves may be affected, and certain points develop more clearly the motor symptoms than others, and a given point become more affected at one time than at another. Disturbance of the motor function in the extremities may be due to the spinal cord exclusively, as, *e. g.*, ataxia to the posterior columns, atrophy, cramps and convulsive muscular action to the anterior portions of the cord or gray matter.

TRICHINOSIS.—Edmund C. Wendt, M. D. (*American Journal of Medical Science*, April, 1878), has contributed a paper to the literature of trichina infection, which is valuable in stating what seems not to be generally known, that the trichinæ having become encysted may still give rise to a considerable pain, and that for years muscular pains like those of muscular rheumatism, may be occasioned by these parasites. Besides the pain, the muscles undergo a degeneration from which they do not fully recover.

Therapeutics.

THYMOL AS AN ANTISEPTIC.—(*Medical Times and Gazette*, March, 1878—*American Journal of Medical Sciences*, April, 1878.)—Thymol is being used as a substitute for carbolic acid, in Lister's antiseptic dressings, by Prof. Volkmann at his clinic at Halle. The solution is prepared as follows: Thymol 1 part, alcohol 10 parts, glycerine 20 parts and water 1,000 parts. This solution has no corrosive action on the instruments immersed in it, in this respect being superior to carbolic acid, and far superior to salicylic acid.

When sprayed over the skin it produces a lively sense of burning, and a redness; otherwise it has no irritant qualities. Anæsthesia of the skin, and desquamation of the epidermis do not follow its use, as they are liable to under the use of carbolic acid. Nor does the thymol irritate the air passages if it is respired.

Antiseptic gauze, by this method, is made of bleached gauze 1,000 parts, spermaceti 500 parts, resin 50 parts and thymol 16 parts—spermaceti being substituted for the paraffin. The thymol gauze is applied directly to the wound—no protective being necessary because the thymol is non-irritant. Between the 7th and 8th external layers a piece of gutta-percha paper, which has been washed in the thymol solution, is placed, and the whole secured by a roller of the guaze. These dressings seldom need changing oftener than once in six or eight days, thus making a great saving over the carbolic dressings. The thymol gauze should be kept in stock wrapped in parchment paper, and should only be opened at the time it is needed.

THE BROMIDES IN EPILEPSY.—(*Journal Nervous and Mental Diseases—Hospital Gazette*, April 18, 1878.)—Prof. E. C. Seguin, M. D., sums up his views on the use of the bromides in epilepsy and other neuroses in the following words:

1. In view of what we know of the physiological and toxic effects of the bromides, and in accordance with either of the two generally received hypotheses of their *modus operandi*, anæmia and debility, or congenital feebleness, contra-indicate the prolonged use of the bromides.

2. The bromides are, on the contrary, well borne by persons of fairly full habit and good nervous power.

3. The bromides are indicated in cases of abnormally great irritability of the nervous system, in its motor (muscular and vaso-motor) and ideational tracts.

4. Epilepsy is so serious a disease, one which, if not interrupted, kills the patient or reduces him to dementia, that we

are justified in using unusual and heroic measures in its treatment. Hence, the contra-indications named above are to be much less regarded in the management of this formidable neurosis.

5. As a corollary to the last proposition, I may state that I consider epilepsy to be the only disease for the cure of which we are justified in deliberately producing a degree of bromism.

MILK DIET IN CHRONIC PLEURISY.—(*Sperimentale*, February, 1878—*Lyon Medical*, March 10, 1878.)—Dr. Curci, before ordering milk diet, had prescribed for his patient an infusion of jaborandi. The latter medicament was well borne, and produced its habitual physiological effects, salivation, and abundant diaphoresis, but the pleuritic effusion was in no way modified. Digitalis, squills and iodide of potassium did not give any better results; and it was only after a series of fruitless endeavors, that he ordered the milk diet. The fourth day after the commencement of treatment, diuresis was greatly augmented and the pleuritic effusion commenced to diminish, and after twenty days the cure was completed.

IODOFORM AS A LOCAL APPLICATION.—Wyndham Cottle, in the *British Medical Journal*, of February, after briefly stating the history and chemistry of the drug, says that chloroform is its best solvent when we wish to employ it in solution. It can be made into an ointment with lard or vaseline, and its odor disguised with some of the essential oils. As a powder it may be used alone or diluted with fuller's-earth, magnesia or tannin; the latter in some measure removes its disagreeable odor. Its action can, perhaps, be best shown, by stating its effects in the several affections in which he had used it. Venereal sores: It acts equally well in hard and soft chancres, no matter where located. It should not be applied to a sore when acutely inflamed. Cures are effected in rather less than half the time required for the ordinary local method. There is less risk of buboes, and the constitutional disturbance is not apt to be as great. It acts particularly well in cases where there is a disposition to slough. Buboes, syphilitic ulcerations, chronic u etc., he has found to speedily heal under its use when means have entirely failed. It acts well as a parasiticide cases of ringworm of the scalp of long duration, sp improvement ensued from its use in the form of ointr Chloasma yields readily to it. In sycosis the results fro application were not encouraging, as it gave rise to undue tation.

Ophthalmology.

OPHTHALMIA PURULENT OF INFANTS—TREATMENT OF.- Luton, of Rheims, states that the tincture of iodine in ch laurel water is a far more efficacious and innocuous mea treatment in the purulent ophthalmia of infants than nitrate of silver. One gramme (15 grains) of the tincture be added to twenty grammes of the water of medium stre (20 degrees), and produces a collyrium the color of brandy. Some of this should be dropped into the eye fo five times a day, external lotions being also abund employed.—*The Medical Press and Circular.*

TOBACCO—AMBLYOPIA.—(*Le Mouvement Medical—Ho Gazette*, April 11, 1878.)—Galezowski divides amblyopia nicotinic, alcoholic, hysteric, glycosuric and albumi besides that from cerebral tumors. All but the first two corroborative symptoms aside from the amblyopia.

Nicotinic and alcoholic amblyopia resemble each other there are distinctions. The *binocular* amblyopia of toba more like alcoholic amblyopia, than is the *monocular* va The pupil in alcoholic amblyopia is largely dilated, but i nicotinic it is strongly contracted. In double nicotinic a opia, the sight for distance decreases so much that the pa believes himself growing rapidly myopic. This remains tionary for a time and then objects become blurred, some tinged yellow. The eye becomes injected, and though vision steadily decreases, the visual field remains good. sensibility of the retina is so exaggerated that if colo shown in rapid succession the patient fails to recognize them. Headache, vertigo, hallucinations and feebleness of memory are generally concomitants. Special feebleness of sight at night is generally marked, which serves to distinguish this from alcoholic amblyopia. The *monocular* amblyopia from tobacco causes an object to be partly covered by a dark spot (scotoma), just as in hemorrhage of the macula, but the ophthalmoscope shows no hemorrhage. The spot enlarges rapidly, the *visual field diminishes*, and amaurosis soon sets in. Ophthalmoscopically there is at first a little anæmia of the papilla, then spasm of the retinal arteries, followed by atrophy of vessels and serous infiltration around the vessels. As nicotine is found in the smoke of tobacco, those who inhale deeply are more liable to suffer. The prognosis is good, but total atrophy of the nerve may occur.

Total abstinence, atropine if myosis exists, pot. brom. if nervous symptoms are marked, are the chief factors in the therapeusis.

Public Health.

A PERFECT VENTILATION.—We know of but one set of buildings in which the ventilation is perfect. These are the houses of Parliament, London, Eng.—(*Brit. Med. Jour.*, March, 1878.)—Here arrangements are provided for all possible contingencies and emergencies. The air is taken from the quiet court-yards of the houses; it is dried and warmed in cold weather by being passed over a large number of metal plates, which are not too highly heated, in order to avoid the fierceness of superheated air. In hot weather it is cooled and washed by being subjected to a large number of minute sprays of water and driven over blocks of ice. In fogs it is driven through layers of cotton wool, which soon become black and foul by the multitude of soot particles, etc., arrested by them, so that repeated renewal is necessary. Machinery exists by which air can be driven in according to the requirements of those inside, and then the used air escapes by numerous orifices in the ceiling into tubes connected with a general exhaust current in the lofty clock tower, where there is a long chimney with a fire at its base. In order to prevent the air from becoming too dry, wet and dry bulb thermometers are fixed up; and if a difference of seven degrees exist between them then the air is moistened. The air of the house is changed six times every hour if required. If there is a full house the demand for air is large; when empty the amount of air driven in is small and according to the number in the house and temperature outside, so the air may require neither heating nor cooling. A vigilant watch is kept as to the filling and emptying of the house, and an ingenious mechanical application at the orifice where the air enters prevents the sudden draught which would otherwise be induced by the incoming or outgoing of a number of members at once.

English Public Health in 1877.—(*Sanitary Record*, March 15, 1878.)—We quote the following interesting facts from a *resume* of the Registrar-General's Quarterly Returns for the last three months of 1877: The population of England and Wales is estimated at twenty-four millions and a half of persons, among whom there is a birth rate equal to 36.1, and a death rate to 20.4 per 1,000. The birth rate was lower than that of 1876, but exceeded by .5 the average rate in the ten years 1867–76. The death rate was lower than in any year since civil registration was established in 1837, and was no less than 1.6 per 1,000 below the average rate in the ten years preceding 1877. Up to 1870 the death rate was almost stationary, and the opponents of sanitary progress urged this fact as evidence of the failure of the efforts to improve the sanitary condition of the people. They lost sight of the principle that a stationary death rate in a rapidly increasing population is in itself evidence that sanitation has successfully counteracted the natural result of an increasing density of population. But the secured benefits, now commencing to show themselves, completely overthrow this argument, for since 1871, not only has the natural increase to the death rate, which might have been expected from the increasingly rapid aggregation of population in large cities been counteracted, but the rate of mortality has exhibited the marked decline of .8 per 1,000, a decrease which may seem unimportant, but which signifies that 132,433 persons have survived, whose deaths would have been recorded had the death rate been equal to that which prevailed during the twenty years, 1851–70.

One of the most satisfactory features in the mortality statistics for England in recent years is the marked and steady decline in the mortality from fever. The annual death rate from fever, including typhus, enteric or typhoid, and simple fever, was equal to .92 per 1,000 persons living in 1868, since which it has steadily declined year by year, and in 1877 it did not exceed .39 per 1,000, or little more than a third of the rate which prevailed in 1868. As the proportional mortality in cases of fever very seldom exceeds twenty per cent, it is evident that this marked decline in the death rate from fever, also signifies a decrease in the number of cases of fever about four times as great as that of the lives saved.

Toxicology.

ATROPIA POISONING.—J. C. Mackenzie, M. D. (*Cincinnati Lancet and Observer*, February, 1878), reports a case of poisoning by sulphate of atropia where two grains had been taken through mistake, followed by grave symptoms and finally by coma, but terminating in recovery. The treatment resorted to was morphia hypodermically, hot water alternated by ice, and the Faradic current.

The minimum fatal dose of atropia is not determined, but cases have died from an amount as small as one-seventh of a grain, while some persons have lived after much larger than two-grain doses have been swallowed.

A REMARKABLE CASE OF MORPHINE TOLERANCE BY AN INFANT.—James S. Little, M. D. (*American Journal of Obstetrics*, April, 1878), reports the case of a child about eight months old that was suffering from an inflammation of the knee-joint, who had become so very tolerant of opiates from long use that it was able to consume and did actually take two fluid ounces of a solution of morphia containing sixteen grains of morphia to the fluid ounce in twenty-four hours, and for nearly a month the average was an ounce each day.

TREATMENT OF STRYCHNIA POISONING BY APOMORPHIA.—R. Glisan, M. D. (*American Journal of Medical Sciences*, April, 1878), was called in December, 1877, to see a man who had taken probably about six grains of sulphate of strychnia with suicidal intent. The man when first seen was in spasms; all the muscles seemed tense, and in fact in such condition that a stomach pump could not be used or anything administered by the mouth. About one-third of a grain of muriate of apomorphia administered hypodermically gave prompt emesis, and relaxed the muscles so fully that there was very little spasm at all after it had taken effect. The poison had been swallowed about half an hour.

The doctor is of the opinion that apomorphia will be found *the* remedy in all cases of poisoning by nux vomica or any of its preparations, but he would not recommend it in cases of narcotic poisoning.

Surgery.

WHAT ANÆSTHETIC SHALL WE USE?—Julian J. Chisholm, M. D. (*American Journal of Dental Science*, April 1878), writes in favor of the use of chloroform as the anæsthetic *par excellence*. The doctor says, that he has practiced surgery for twenty-five years—has administered chloroform to fully 6,000 cases. He has given it to all classes and conditions and ages of people, and has yet to see the first death from chloroform in his own practice or that of his friends. He insists that the drug should be given to complete anæsthesia before the operation begins, so as to cut off all reflex action.

He says that it is this reflex nerve action which kills under the hand of timid operators who do not give anæsthetics to complete insensibility.

The doctor has collected over 250,000 cases of anæsthesia produced by chloroform, and among them there were only 12 deaths, which can fairly be attributed to the drug itself.

While it is not denied that chloroform can kill, it is claimed that many of the deaths attributed to chloroform are due to the carelessness of the *administrator* of the chloroform.

KOLPO-PERINEOPLASTY.—Henry Banga, M. D. (*American Journal of Obstetrics*, April, 1878), details this new operation—new, perhaps, more in its fearful name than in actual fact—and gives credit to Bischoff as the inventor.

The operation consists in dissecting an elliptical flap from the floor of the vagina, having its attached base toward the uterus. The perineal portion of the vulva is then denuded of its mucous coat as high as the middle of the nymphæ. The flap is then secured to its new attachments by interrupted sutures of silk. Then the point of the flap is elevated, and wire sutures are passed through the tissue deep down so to be sure that the surfaces at the bottom will touch. At its upper or rather outer extremity the flap is also caught by the wire once or twice, and all drawn down together. The wound usually heals by first intention, and gives a strong perineum that well sustains and supports the uterus.

SUPRA-PUBIC LITHOTOMY.—C. W. Dulles, M. D. (*American Journal of Medical Science*, April, 1878), publishes all the cases of supra-pubic lithotomy which he has been able to collect during the last ten years. They number twenty cases with two deaths. Mortality, one in ten. The doctor claims that the dangers to be met and avoided are far less in this operation than they are in lateral perineal lithotomy.

REMOVING FOREIGN BODIES FROM THE ŒSOPHAGUS.—(*Medical and Surgical Reporter*, Oct. 20, 1877.)—Dr. Reeves, in the Melbourne *Medical Record*, thus describes his instrument: Three or four pieces of elastic wire, from twenty to twenty-four inches long, are twisted together down to within half an inch of their extremities, the extreme ends of which are curved outward and upward and carefully filed down, to prevent their injuring the coats of the canal. A piece of large-sized catheter of the same length is passed down, to prevent the prongs expanding, the extremities fitting well over the ends of the catheter, to admit of the instrument readily passing beyond the obstruction, without driving it deeper into the canal. The instrument, with the prongs closed, is passed down the gullet, well beyond the piece of bone or money, and the tube is then drawn up, the prongs expanding, bringing with it the foreign body. Some difficulty may be experienced with fine, long fish-bones, from the extremities of the prongs not being able to obtain hold sufficient upon them to loosen them; but this will be overcome by passing a little floss silk loosely from one prong to the other.

Obstetrics.

VOMITING OF PREGNANCY TREATED LOCALLY—M. O. Jones, M. D. (*Richmond and Louisville Medical Journal*), treats the obstinate vomiting of pregnancy locally. Where the vomiting is persistent, he applies the solid nitrate of silver to the cervix uteri, and his patients get very prompt relief. In some of his cases he had tried the routine treatment—doctoring the stomach when another organ was at fault. Dr. J. Marion Sims also reports a case, and indorses Dr. Jones' treatment. One or two applications are said to be sufficient if thoroughly done.

LAPARO-ELYTROTOMY—A SUBSTITUTE FOR CÆSAREAN SECTION.—(T. Gaillard Thomas, M. D., *American Obstetric Journal*, April, 1878.)—This operation, detailed at length in this number of the *Journal*, consists in the delivery of the fetus through the vagina above the pubes, by means of a section of the abdominal walls, a lifting of the peritoneum out of the way, and a section of the vagina at its junction with the cervix uteri. The section of the abdominal wall is made from the spine of the pubes to the anterior superior spinous process of the ilium directly above the ligament of Poupart. When the peritoneum is reached it is easily lifted up and pressed back, and the vagina is incised through the wound and torn still farther open. The hand is passed into the opening and on into the uterus, the fetus turned by the feet and delivered, or if the breech presents it is extracted.

This operation, first performed by Ritgen, was repeated by Dr. Thomas in 1870, and since 1870 five times by Dr. Thomas and Dr. A. J. C. Skeene, of Brooklyn. Its advantages are ably set forth by Dr. Thomas who seems to be fully in the faith that it will supersede both the Cæsarean section and craniotomy. This operation avoids peritonitis, metritis and incarceration of the intestine, and diminishes the dangers of shock and septicæmia. Hemorrhage seems to be the greatest danger, but in the cases reported it did not occur. The statistics are: The number of operations performed, 5; mothers now living, 3; children delivered alive, 4. The particular condition of the mothers is not stated, but it would seem that, if the vagina should refuse to heal at the side where the rent was made, there would still be room to doubt the advisability of the operation. Neither is a vesico-vaginal fistula a very comfortable thing to have, especially for the patient, notwithstanding Dr. Thomas makes so light of it.

The Pulse Rate in Relation to Post-Partum Hemorrhage.—J. Ashburton Thompson, M. D. (*Obstetric Journal*, March, 1878), has reviewed a series of cases in relation to the statement made, which was thought to have the force of a rule, that a pulse rate of 100 per minute or over, prognosticated post-partum hemorrhage. The doctor has concluded that this statement is not strictly correct, for he has shown that the uterus may contract firmly and remain so when the pulse rate is more than 100 per minute, and he has also shown that a pulse rate of sixty-five or seventy per minute may be followed by a grave flooding. But the doctor does claim that the peculiarity of the pulse will foretell the approach of a hemorrhage, because this peculiarity will indicate that the patient is suffering from the effects of shock so much that the condition of inertia of the uterus will follow, and of course flooding.

Gastro-Hysterotomy.—Robert P. Harris, M. D. (*American Journal of Medical Sciences*, April, 1878), has a lengthy article under the above caption, in which he presents the subject in the light of American experience, and shows the success that has hitherto attended this operation in America. He has presented seventy-one cases that have been operated upon in the United States since 1822. Of these seventy-one cases, thirty-seven died. The immediately recognized causes of death were: Peritonitis, sixteen; exhaustion and nerve-shock, eight; septicæmia, two; strangulation of the intestines, one; hemorrhage from incomplete closure of the uterine wound and other causes not especially mentioned, ten cases. By these seventy-one operations seventy-three children were delivered (two being twin pregnancies), and of these, thirty-six were dead and thirty-seven alive, of whom five died within ten days, saving thirty-two. Generally the cause of death was connected with tedious and frequently unnecessary delay. In the treatment of the uterine wound the greatest weight seems to be in favor of sutures. In cases of occlusion the parts should be opened during the operation and kept open by drainage tubes or their equivalent. The obvious lesson to be learned is that the Cæsarean section to be of the best service should be done early, and it is believed that better results can be obtained than have yet been shown, if the popular idea of the extreme fatality of these cases can be overcome. If performed early and carefully, there seems to be no reason why the Cæsarean section should not be as successful as the operation of ovariotomy.

THE MECHANISM OF LABOR.—William Stephenson, M. D., F. R. C. S. E., Regius Professor of Midwifery in the University of Aberdeen (*Obstetrical Journal*, February and March, 1878), says that the normal movement of the fetal head through the parturient canal is one of translation, combined with rotation, whereby chin flexion is increased. This is until the fetal head reaches the floor of the pelvis.

When the direction of the uterine axis and the diameters of the pelvis are normal, the movements of the fetal head in this part of the course, are influenced only by the soft parts.

In the normal position, at the brim of the pelvis, the transverse plane of the fetal head is parallel with that of the brim, and the axis of the inlet and of the uterus, passes the sagittal suture, and as the fetal head is bilaterally symmetrical, we may assume that the resultants of the forces, uterine and resistant, act in one plane—the sagittal plane of the head.

The resultant of the uterine forces always coincides with the axis of the uterus, which axis is not always found to coincide with the axis of the inlet, but is subject to deviations from it, and will change from time to time according to the position of the patient.

Besides the propelling force—the uterine—there are resisting forces from the soft parts, as before indicated, which may resolve themselves into two resultants, one acting on the anterior of the fetal cranium, the other acting on the posterior. The direction of these forces will be very nearly a perpendicular to the surface on which they act, but influenced by the friction of the soft parts. However, as they are supposed to be well lubricated, the influence of friction is slight. If, then, we have a solid body under the influence of three forces acting in the same plane, if the three forces meet at a point, there will be simple translation, if there is any movement at all. If two forces meet at a point, and one passes to one side, then there will be a rotation.

Reducing this to practice, we have in the sagittal plane of the fetal head two forces that will meet at a point, viz.: the anterior and posterior resultants. If, then, the uterine resultant also meets at the same point in the same plane, the movement must be forward without rotation; but if the uterine resultant acts at a point behind that of the anterior and posterior resultants, or rather between this last mentioned and the occiput, the fetal head will flex the chin in its descent. If the uterine resultant passes between the point of intersection of the anterior and posterior resultants and the forehead, the chin will extend in rotation, and we shall have face presentation.

In the uniformly contracted pelvis, these forces are liable to exaggerate the chin flexion. In the flat pelvis the forehead is apt to descend first, but not constantly.

We may learn from this theory of the mechanics of parturition, to pay greater attention to the direction of the axis of the uterus.

WM. H. DOUGHTY, M. D. (*American Journal of Obstetrics*, April, 1878), advocates the conversion of occipito-posterior positions into occipito-anterior positions, and thus save the long, tedious labors that are occasioned by the first named positions. His method is to apply one or more fingers to the temporal region of the fetal head, and make pressure so as to assist rotation of the head, the occiput to the front.—[Not a very new proceeding.—ED.]

RICHARD A. CLEEMAN, M. D. (*American Journal of Obstetrics*, April, 1878), has brought out a new modification of the forceps. He has taken a Hodge forceps, and bent the blades on the shank at an angle of 120 degrees. This angle facilitates application when the fetal head is above the superior strait, and is an addition to the helps that every obstetrician needs more or less often.

The Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

The Late Meeting of the Michigan State Medical Society.

One of the notable features of the late meeting of the State Medical Society was the dearth of original papers. Those that were read, with few exceptions, were of very humble merit, indeed, and scarcely rewarded the society for the time spent in listening to them.

It seems to us, however, that there are good reasons why so little good work is done in this direction. So much time in these meetings is usually spent in unprofitable and unsatisfactory discussions of a political nature, that little time is left for the consideration of purely scientific work. Members are thus discouraged from devoting time and thought to papers which they may not have the opportunity of reading.

It is of course highly necessary in a body of this kind, to consider the questions of a political nature, which, from time to time, come up affecting the body corporate; but these should not be permitted to tread upon the time devoted to the consideration of subjects of scientific professional interest.

It is to be hoped that the "University Question," which has straddled the neck of this society, as did the "Old man of the Mountain," that of "Sinbad the Sailor," will soon be finally disposed of. The consideration has needlessly given rise to more acrimonious personal recrimination than any question which, to our knowledge, has ever come before the society. Though, why gentlemen, when discussing questions of principle, will descend to vulgar personalities, and consider those who differ in opinion from them personal enemies, we cannot understand. Truth is omnipresent, though not always apparent, and in the search for it, gentlemen do not discover it any the more readily by throwing mud into each other's eyes.

There was one point made in the discussion of this question, which we hope will disabuse the mind of some members of the profession of an error, which interested parties have striven to commit them to, viz.: that the "University War," as it has been called, was initiated and maintained by the Detroit Medical College. The source of this statement, and the continued stream of falsehood which has drenched the profession anent this point, is too well known to need mention; but its motive was too apparent, and the falsehood too clumsy to meet with the success that was expected. The originators of it paid but a poor compliment indeed to the manliness and independence of the profession of the State, to suppose that it could for a moment be manipulated by a few men in Detroit for mercenary motives. If the truth were told by them, the backbone of the opposition to the Medical Department of the University, as it now exists, is its old alumni, who seek to save their *Alma Mater* from a misalliance which they deem disgraceful to her, and this they are striving to do, in no personal spirit of rancor to any one, but actuated by what seems to them the best interests of their *Alma Mater*, and the profession of the State in general.

President Pratt's address was an admirable one, a credit to himself and the society. The resolution of the society to furnish copies for the daily papers, and to publish it in pamphlet form for general distribution, was a wise one. The subject on which it treats, and the suggestions thrown out, are worthy the best consideration of every one into whose hands it may fall.

H. A. C.

Diphtheria in Toledo.

Our neighbors in Toledo have, until last September, been comparatively free from diphtheria; but from September to February have had 41 fatal cases, nearly all under fifteen years of age.

The disease seems to have broken out in the Jefferson school in that city. At this school the children drank water from a cistern that was provided with a filter to filter the water, but which had not been renewed during three and one-half years. Neither had the cistern been cleaned in all that time. The water supply is derived from the roof of the school building. The wastage was provided for when the cistern was built by a pipe with a running trap, which pipe emptied itself into the privy vaults, which again were connected with the public sewers. The trap was of such construction that it was liable to siphon itself out if the waste-pipe were flushed. Consequently, the water in the cistern was liable at any time to be brought into contact with sewer gas. The cistern was not ventilated except by what draught of air could be caused to ascend through the filter and the conductor of the school building to the roof.

The microscope showed a large amount of organic matter in the water, nor was it necessary to resort to the microscope, because the water smelled so badly that many of the children refused to drink it. In the face of these facts, which are abundantly proved, the Board of Education considered the water pure enough, and when peremptorily ordered by the Board of Health to close the school and keep it closed until certain changes had been made, obtained an injunction restraining the Board of Health from enforcing its order.

Such a Board of Education ought itself to be educated. As if it were not enough that the epidemics of typhoid fever at Pittsfield and Williamstown, Mass., from sewer gas, and sewage in water, or its equivalent, had been made known to the world, and later, an epidemic in Rochester, N. Y., and, also, in Vermont, of a serious character—these Solons of Toledo go on and run their Jefferson school, upheld by the courts of justice, and continue to sacrifice the innocents of the city to the Moloch of filth! The heart sickens at the contemplation of such recklessness. More money spent to obtain an injunction than would have sufficed to complete the changes ordered by the Board of Health!

We sincerely hope that these things shall not always be.

J. B.

Obituary.

CHARLES HIBBARD, M. D., died April 5th, 1878, at North Branch, Lapeer Co., Mich, aged 24. Dr. Hibbard was a native of Detroit, was a graduate of the literary department of the University of Michigan, and in 1876 graduated in medicine in Detroit Medical College. The next year he spent in Berlin and Vienna in enthusiastic work in his profession. A few months after his return he established himself for practice at the place where his death occurred.

An ardent lover of his profession, he speedily gained the confidence and respect of the community. From an early age Dr. H. was fond of scientific pursuits and he consequently brought an unusual amount of general scientific culture to bear upon his special studies, and the promise of his student life was beginning to bring worthy fruit in practice. Acute, cool and patient, with a peculiar nicety of touch, he was well fitted to be a physician.

These qualities were well illustrated during his last hours. He had been several miles from home in the evening to visit a patient; returning, as it was intensely dark and the roads bad, he endeavored to light a carriage lamp, but losing control of the horse, the carriage was dashed violently against a stump, and he was thrown with great force upon a log and rendered helpless. Fortunately he was not far from the house, and his cry was heard. When found he was in great agony, but refused to have a physician sent for as he said he knew what was needful and what was the matter. He then instructed the attendants in the use of the hypodermic syringe, and calmly directed the application of remedies through the long hours of suffering till daylight and the arrival of a physician. He sank and died at eleven o'clock A. M., the day after the injury.

A *post-mortem* revealed the abdominal cavity filled with blood, from the frightfully lacerated liver. The right lung also was torn, and one rib fractured. Each one of these injuries had been recognized by the sufferer himself.

GREAT press of original matter has forced us to retain the excellent report of the Washtenaw County Medical Society till next issue, as also much other interesting matter.—[ED.]

Memoranda.

Twenty-fourth street, New York, is known as "Pill Row."

The estimated cost of the new John Hopkin's Hospital is $4,000 per bed.

Columbia College of New York has conferred the degree of LL. D. upon Prof. Fordyce Barker.

Mr. Liebreich, the eminent oculist, has resigned his position at St. Thomas Hospital, London.

The existence of the plain unstriped muscular fibers of the arteries was first demonstrated by Henle in 1840.

The Tennessee State Medical Society at its recent meeting passed resolutions approving and indorsing the establishment of the American Medical College Association.

A monthly medical and pharmaceutical journal has recently been started in Atlanta, Ga. It contains twenty-five pages, and is published at the price of one dollar per year.

Dr. T. Gaillard Thomas recommends the intra-venous injection of milk as a substitute for transfusion of blood.

A fatal case of yellow fever recently occurred in London, England—the first within the memory of living physicians. It was contracted on board of a West Indian steamer.

Dr. Goodell says: "If the neck of the uterus appears as hard as the end of your nose pregnancy should exist. If it appears as soft as your lips the uterus probably contains a fetus."

The first operation for ovariotomy performed in Europe was by Dr. Gaetano Emiliani, of Faenza, in 1815. Dr. Ephraim McDowell, of Kentucky, did his first operation in 1809.

In England during the last year there were only 1,287 hours of sunshine out of a possible of 4,435 hours. There were 81 days that the sun was not visible at all. May old England's shadows never grow less.

A German botanist, M. Regel, has just discovered in the Himalaya Mountains a variety of wild onion which he calls *Allium cepa silvestre*, and which he considers as the parent stock of all our ordinary onions.—*L'Union Medicale, Feb. 12, 1878.*

The United States Marine Hospital Service has issued a circular stating that the medical officers of this service will from this time for all official, medical and pharmacal purposes make use of the metric system of weights and measures. Rules for the ready conversion of the United States apothecaries' weights and measures into their respective equivalents in metric terms are appended.

We have received the prospectus of a new medical journal, to be known as *The Obstetrical Gazette.* It will be a monthly of 48 pages, edited and published by Dr. E. B. Stevens, of Cincinnati, Ohio. Dr. Stevens is well known to the profession as the former editor and publisher of the *Cincinnati Lancet and Observer.* With his experience and energy, we doubt not that his new venture will be of profit to both the profession and himself.

In a recent English malpractice suit Dr. Broadbent and Dr. Bastian swore that the injuries sustained by the plaintiff resulted from a mechanical accident, and were irremediable. But Mr. Smith, of King's College Hospital, and Mr. Erichsen swore that the condition of the plaintiff was not due to violence, but to organic brain disease, which could be cured within twelve months. A difference certainly—yet the plaintiff recovered £1,250 damages.

The State of Connecticut has established a State Board of Health. Its members are Dr. J. S. Butler; A. E. Burr, editor of the Hartford *Times;* Prof. C. A. Lindsley, M. D., of the Yale Medical School; Prof. W. H. Brewer, of the Scheffield Scientific School; Dr. Robert Hubbard and A. C. Lippitt. Thus three of the Board are physicians, one a lawyer, and two laymen. Thus the seventeenth State has wheeled into the line of those having State Boards of Health.

The New York County Medical Society has, by its committees, been investigating the abuses of medical charities. It concludes that gratuitous professional serving in charitable institutions leads to professional poverty, and therefore should be covered with odium. Further, the officials of such institutions should be induced to adopt and execute such laws as will prevent other than the worthy poor from obtaining the benefits of these charities. It is even proposed to disfellowship those who, after July 4th, 1878, give gratuitous professional service in any such institution.

The Illinois State Board of Health has unanimously adopted the following resolutions:

Resolved, That on and after July 1, 1878, the Board will not consider any medical school in good standing which holds two graduating courses in one year.

Resolved, That on and after July 1, 1878, the Board will not recognize the diplomas of any medical school which does not require of its candidates for graduation the actual attendance upon at least two full courses of lectures, with an interval of six months or more.

The venerable Professor Henry, of the Smithsonian Institute at Washington, is dead.

The origin of the pus cells is not yet settled beyond dispute. Thus Stricker (Vorlesungen, 11 Abth-Vienna, 1878) claims that he has proved by a long series of observations that the nuclei of the cornea and the granular net-work in which they seem to be embedded under the stimulus of inflammation proliferate into new cells. On the other hand, Cohnheim (Vorlesungen Band 1, Berlin, 1878) maintains that we are still a long way off any proof that pus cells originate otherwise than as emigrated colorless blood corpuscles, and that the most that can be said is that pus cells probably increase in number by undergoing division. Each of these authorities has blended his views with a vast chain of pathological facts and reasoning. As both cannot be correct, a mess is before other students to separate true from false.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

ATLAS OF SKIN DISEASES; by Louis A. Duhering, Professor of Skin Diseases in Hospital University of Pennsylvania. Part III. Price, $2.50 per part. Philadelphia: J. P. Lippincott & Co. 1878.

This part contains illustrations and letter-press descriptions of "eczema squamosum," "syphiloderma erythematosum," "purpura simplex," and "syphiloderma papulosum et pustulosum." These illustrations are if possible superior to those of preceding parts, and to the student or practitioner unfamiliar with these affections they present a very graphic and lasting clinical lecture. They are simply superb.

[Owing to press of other matter the remaining book notices are crowded out of this issue—.ED.]

THE DETROIT LANCET.

VOL. I. JULY, 1878. No. 7.

Original Communications.

A Case of Epilepsy, Seemingly from Conflicting Heredities, and Successfully Treated upon that Hypothesis.

BY A. F. KINNE, M. D.

A little boy, C. B., between eight and nine years of age, was found in convulsions, in his bed, December 20, 1876. No deviation from health had been previously noticed. He had gone to bed as usual, and at the usual hour, and had just fallen into his first sleep. But he had been drinking new cider that day—perhaps too freely—and, as he was not apparently a very strong child, it was deemed possible that the nervous disturbance might be due to that.

Ten days afterwards, however, at the same time of day, and under similar circumstances, he had a second paroxysm, rather worse than the first; and, as this time there had been no errors of diet, there was no longer room to doubt that it was a true case of epilepsy, and a searching inquiry was, of course, instituted, to find out, if possible, the cause of it.

But nothing was elicited until we came to his teeth. He was in the midst of his second dentition. The new incisors had presented themselves, above and below; the rest of the first set were all more or less loosened; several of them were decayed; and, at the root of one of the bicuspids, an abscess was forming, from which, two days afterwards, I got a small quantity of offensive matter.

Could the epilepsy have been caused by this abscess Hardly; for, at the time of the first attack, it was not know to exist, and probably had not begun to form. Could it b attributed to the decayed teeth? Hardly, I say again, but more faintly, I must confess, for a case of epilepsy was put upon record by Benjamin Rush, in 1801, which, in his opinion, was caused by decayed teeth, and which was cured by their extraction. This distinguished opinion was not to be quite disregarded, at any rate, and the defective teeth were at once removed. But the subsequent history of the case will show that this step alone did not go to the bottom of the difficulty.

There was evidence of a crowding of the new teeth, particularly of the upper canines and bicuspids. There was redness and tumefaction, and some tenderness, upon pressure, on both sides; and there was pain, sometimes upon one side, and sometimes upon the other, and not always confined to the facial regions. He often referred it—most frequently, perhaps—to the forehead and temples. And this pain was a prominent symptom, in the progress of the case, for several months. It was never severe, and was seldom complained of, except upon his first going to bed at night. And there was no nausea or vomiting; not much tendency to constipation; no intolerance of light or sound, and no dizziness. He ate well and slept well, and enjoyed his play.

But this "headache," as he called it, and the peculiar irritability of temper, which is so characteristic of these cases, and which had been noticed in this case from the first, still continued, and did not wear off until seven or eight months had elapsed, and the new teeth were pretty well grown.

My friend, Dr. John A. Watling, professor of dentistry in Michigan University, whom I consulted, suggested the probable dependence of the nervous disturbance, in this case, upon conflicting heredities, the relative size of the jaw and of the teeth, in his opinion, indicating that the child had got a small jaw from the side of the mother, and large teeth from that of th father, and hence the crowding. This was my own id exactly. The facial bones of the patient's mother and matern grandmother, are very small indeed; while, in the case of the father, the teeth are large, and the head very large throughout.

The author of the Lumleian Lectures says: "It is seldom that dental irritation produces convulsions, either from decay of the first set of teeth, or during the appearance of the second set, though to both of these rules I have seen an occasional exception, especially in cases where, from the narrowness of the jaw, the teeth of the second set are extremely crowded.[*] But he fails to intimate that these cases of "crowding" are ever due to a crossing of heredities. As the views of these authorities, however, are not in conflict, we may accept both of them, and especially as it can make no difference with the indications of treatment. These were very plain, viz.: To exhibit the bromides, and, if possible, keep the epilepsy in abeyance until the pressure should be relieved by a better development of the jaw. This we have done, and with apparent success, up to the present time. I have administered the bromide of potassium alone, and have followed, in general, the plan which the late Professor Niemeyer says he got from a "specialist."[†] My initial dose was seven and one-half grains three times a day, and the maximum quantity which was arrived at, the last of June, was forty grains a day. And this quantity, which was attended by the characteristic "acne-like" eruption, slight, however, in degree, was steadily continued until September the 30th. Once in January, and again in February, the night dose was inadvertently omitted; and the result, in both instances, was a very slight epileptic seizure. With these exceptions, the line of treatment above indicated, aided by a carefully regulated diet and regimen, has been faithfully followed out.

But in the course of the last four or five months, the evidences of an improved condition have seemed to warrant a relaxation of the rule. The facial development has been considerable; the local evidences of dental irritation have gradually subsided; the headache is now seldom complained of; and the *morale* of the patient is so much better than it was, that, under careful restrictions, he has been permitted to take up his books again, and gradually resume his place in school.

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[*] West on "Nervous Diseases." Phila., 1871, p. 42.

[†] "Text Book of Practical Medicine." Am. ed., 1878; vol. ii., p. 367.

And *pari passu* with this progressive improvement, but keeping sedulously behind it, the bromide of potassium has been gradually withdrawn. At present he is taking a night dose of ten grains; and this dose occasionally omitted, perhaps, but not lost sight of, will be continued, and kept on hand to meet an occasional return of the old irritability, for a good many months to come.

YPSILANTI.

Trichinosis.

PAPER READ BEFORE THE CALHOUN COUNTY MEDICAL SOCIETY BY DR. D. C. HAUXHURST.

Since Prof. Zenker made his admirable researches in 1860, trichinosis has been frequently noted in many parts of this country and in Europe as an epidemic, proving fatal to many of its victims and seriously disabling many others. It was Prof. Zenker who so admirably described the symptomatology of this disease and enabled us to place it in our nosological tables.

For many years it has been known that a certain microscopic parasite has its habitat in the muscle of the hog; but it had not been suspected that this parasite could live after having been taken into the human stomach. Prof. Zenker's discovery that the animals on reaching the stomach are dissolved out of their cysts by the gastric fluids, and that they pair and give birth to a numerous progeny which make their way into the muscles, producing severe local lesions as well as serious general symptoms, came upon the medical profession almost in the character of a sensation.

In some cases epidemics of trichinosis were mistaken for cholera, and were treated for it; in other cases the disease was supposed to be typhoid fever. One author goes so far as to remark that trichinosis has been treated oftener as one of these diseases than as the trichina disease. Every year the number of such mistakes decreases, and there is at the present day no excuse for mistaking this serious disease for any other.

The pathology and symptomatology of trichinosis is so well given by Niemeyer, Flint and others, that I shall say nothing upon these topics. I design only to point out some of the most available methods of examining pork for the parasite.

If it be desired to ascertain if the flesh of an animal contain trichinæ, certain muscles should be examined first. The muscles about the loins and the diaphragm will present them in greatest numbers; next the intercostal muscles may be examined. They are often very numerous in the deltoid and in the muscles of the eye.

The worm penetrates the coats of the stomach and goes directly into the diaphragm. To the muscles of the loins it passes from the intestines by way of the mesentery. Having been observed in muscles at a considerable distance from its breeding ground in the stomach and intestines within a comparatively short period, as in the orbital muscles, it has been suggested that this parasite penetrates the coats of the blood vessels and is swept into the most distant localities by the circulation. I know of no certain evidence that this is the case. When once within the muscle, which seems to be their normal habitat, the trichinæ make their way between the fibers and often travel long distances. Thus it happens that as they approach the tendinous attachments of the muscles the converging channels between the fibers bring great numbers of them into a very limited space. For this reason, in examining a specimen of pork the extremities of the muscle should be chosen. I have often found from eight to twelve thousand in these situations in one cubic inch.

A first examination for trichinæ may be made with the naked eye. For many years certain punctate marks had been occasionally observed in the muscles in dissecting rooms, but their significance was not understood; they are the calcified cysts of the *trichina spiralis*. They are best observed, however, by means of a lens of slight magnifying power. There need be no preparation of the tissue, except to make a section and view it by ordinary direct light. On making the cut a certain grating sensation will be experienced, providing the cysts have been calcified. Trichinæ may exist in uncalcified cysts, or even free in the muscle; in which case this preliminary examination would be useless.

For a first examination under a microscope use a one inch objective. Place a fine piece of the muscle in question on a glass slide in a drop of serum, or aqueous humor, or a one per cent solution of common salt. Teaze out the fibers and separate them from one another by means of fine needles set in sticks for handles; keep the eye all the while on the work and watch for the dim outlines of the worm. Perhaps the cyst will appear first; it may be that your manipulations will have torn the cyst and let the worm out. A little dilute hydrochloric acid added when the cyst is once discovered will decalcify it and render the parasite visible through its translucent walls. When the tissue is well displayed by the above means a thin glass cover should be placed over it; the focusing will be better and the parts more distinct. Judicious pressure on the cover glass may often be made to bring the trichinæ into view by thinning and displacing the parts under it. It is often an aid to use some staining fluid—Beale's carmine, or the hæmatoxylon fluid. I have often placed a drop of this fluid at the edge of the cover glass, watching the field while it made its way by capillary attraction among the fibers of the tissue, and have seen the outlines of the parasite come out clearly and distinctly when nothing could be seen before.

The examination by thin sections may be practiced with advantage. If the muscle be carefully dried, very beautiful sections may be made with a sharp razor dipped in dilute alcohol. These may be easily handled with a camel's hair pencil. The thinnest should be placed upon a slide under a cover glass, and may be examined directly in staining fluid or in the salt solution. Excellent sections may be cut from frozen tissue or from tissue soaked for a few weeks in strong alcohol, or in a ten per cent solution of bichromate of potash.

It is often of great advantage in searching for trichinæ to press the cover glass down with the point of a needle, forcing the staining fluid out from among the fibers of the section and then to relax the pressure, thus permitting the fluid to return in numerous currents. Rapid alternations of pressure in this way will often wash away foreign matters and reveal the presence of the parasite. Sometimes it will be washed clear of the cyst, in which case its clear edges contrast sharply with the rich tints of the fluid. Occasionally a happy section will have been made in such manner as to reveal the trichinæ as soon as it is brought within the field of the instrument and without manipulation. On the other hand, several sections will sometimes yield no specimen even after most careful scrutiny.

In general, the first examination of a section will be made with a low power. If, on sweeping the eye over the field, any point of special interest presents itself it may be examined with a higher power—a one-fourth inch objective, or a one-fifth inch.

Some of these sections may yield very beautiful displays of muscular fiber, and if put up permanently may be objects of great interest, as well for displaying the structure of the tissue as for the parasite contained in it. They may be treated with alcohol and put up permanently in Canada balsam. Dammar lac, glycerine jelly, or even dilute glycerine, make very excellent preservative fluids for trichinæ.

Report on Calhoun County Epidemics and Endemics.

READ TO THE COUNTY MEDICAL SOCIETY BY DR. JOHN P. STODDARD.

Your Committee on Epidemics and Endemics beg leave to submit to your attention the following partial report:

While being fully aware that properly the space of time to be embraced in this report extends only from the first of last December to the present time, your committee take the liberty of going back to the time of the last report presented, which would make this report cover the interval of the last six months.

During this period there has been a number of local epidemics, so to speak, scattered in various parts of the county, and occurring at different dates.

In the village of Tekonsha and vicinity during the months of last October and November, there was quite a severe epidemic of diphtheria—as many as sixty cases occurring, with twelve or fourteen deaths. Since, however, Dr. Lyons, who is a resident of Tekonska, kindly reported, by letter, the facts of this epidemic to the last meeting of this association, stating that he had treated some twenty cases with three or four deaths, and also, since he gave his observations on this epidemic at length, with his treatment, it is not necessary that your committee dwell on this point.

During the same month a number of cases of this disease made an appearance at both Battle Creek and Marshall, but not enough in either locality to be designated an epidemic.

Dr. E. A. Collins, of Homer, reports a modified epidemic of this affection occurring during the months of January and February of this year, east and south of his place, probably an extension of a severe epidemic prevailing in Concord and Pulaski, in Jackson county. He reports that he has treated ten cases with no deaths. He says, in regard to treatment: "I have great confidence in local treatment, provided the case is seen sufficiently early, and believe it as easily controlled as ague. My cases thus far have proved its value to me."

Scarlatina has prevailed to a slight extent in Homer and vicinity during the last two months, with no reported deaths. At the village of Albion during the month of May last there occurred some three or four cases of this disease, with one reported death. From this date to the first of November last one or two new cases appeared each week, but the complaint in each case was of an exceedingly mild character, no more deaths from this cause being reported; but during the months of November and December there was a notable increase in the frequency of the disease and somewhat in the severity of th complaint. Probably during these months there occurred thirty-five or forty cases, with three or four reported deaths. The disease was undoubtedly in the first case of foreign origin, but when the attendants upon our public school became infected, the prevalence of the complaint became thus daily renewed, and it was not till the two weeks' vacation at the holidays occurred that the disease disappeared from among us. Since then there have been only one or two sporadic cases.

There have been a few cases of measles in various localities of our county, but in no case could its manifestation be dignified as an epidemic. In Marshall this disease was first pronounced by the homeopathic practitioners as scarlatina.

Whooping-cough has also prevailed lightly at various points in the county.

At Battle Creek City, in its northwest quarter, there occurred quite an endemic of typhoid fever, some thirty or thirty-five cases having been recorded. These were principally treated by Dr. J. H. Kellogg, of the Health Sanitarium, who reports but one death—the affection being of a mild type. Since, however, Dr. Kellogg fully reported these cases, together with his treatment and conclusions, to the last meeting of this association, I need not further refer to this matter.

In conclusion, your committee feel to say that for the past year this county has been most signally free from any malignant epidemic or endemic—carrying death and distress to our people, such as have occurred in many a less favored locality in our State. Also that the type or character of all our diseases has been mild, and that they have been easily controlled by remedies.

A Remarkable Case of Tumor in a Child.

BY CHARLES BLACK, B. A., C. M., M. D.

In December of 1876 Mrs. E. brought a male child, aged fourteen months to me for advice. She gave the following history: About four months previous she observed two growths in the left hypochondriac region, which increased rapidly in size, attended with constitutional disturbance and general emaciation. The child was seen frequently by the family physician, who put it upon alteratives and tonics without any benefit. There was no family history of scrofula or phthisis. Both parents were healthy and well developed. Upon examination the child was found much emaciated, and the abdomen enormously distended by a tumor which occupied the entire abdominal cavity. It was hard and rounded, with no signs of fluctuation. What its exact nature was I was unable to make out, and advised to continue the alterative and tonic treatment. I saw it several times with Dr. Yeomans during a period of three months; and on one occasion we passed the needle of an aspirator into the substance of the tumor, but failed to get any fluid. The swelling increased rapidly until the abdominal parieties became as thin as parchment. After three or four attacks of convulsions it died quietly. Having obtained permission of the parents I made a *post-mortem* examination of the body in the presence of Drs. Yeomans and Jones, of Mount Forest, Ont. The tumor, which filled the entire abdominal cavity, crowding the viscera into the smallest possible space, was found to be a hard, dense mass. Its microscopic examination showed it to belong to the class lipomata. From the lower border of the spleen there arose a fleshy pedicle, which expanded like the calyx of a flower and inclosed a small tumor; to this the large one was attached by a short lobulated pedicle, having also very vascular adhesions on its posterior aspect. There were no cysts or fluid in connection with it. The entire mass weighed nine pounds two ounces. All the organs of the body were normal.

This growth, occurring in a child of only one year and five months of age, is certainly one of the most remarkable cases on record. I sent a specimen of the tumor to Professor Dunster, of the University of Michigan, who said it was one of the most interesting cases he had ever read of.

Fatty Heart, Illustrated by a Case.

BY C. B. GILBERT, M. D., PROFESSOR MATERIA MEDICA, DETROIT MEDICAL COLLEGE.

Mr. J. S., the subject of the present sketch, was born in England, 1810. He came to America 1834, residing in this country till 1838, when he removed to Amherstburg, Ont., and thence to Windsor, where he died last December. His occupation was farming, until 1838. From that time till within eight years of his death, he kept a hotel—the latter years were spent in looking after his little property in and about Windsor. His habits were very regular; his health was unusually good, until about 1870, when he complained of dyspeptic symptoms, attended by a good deal of gastric catarrh, which was very likely to be aggravated during the winter months, but without causing any serious constitutional disturbance. But about this time (1870) a laryngeal trouble caused him much annoyance, provoking more or less cough, with occasional vomiting, and spitting of a thick muco-purulent matter. This, with loss of appetite, deprived him of his accustomed food, which had always been of the most substantial kind—meat, bread, vegetables, tea, etc.

The use of stimulants of any kind was not habitual with him. This condition of things went on with gradually lessening severity (especially after he left the hotel, to live in a little grove, just back of Windsor) till October, 1875, when, with his wife, he visited his friends in England, returning the next June. During his absence he lost all his troublesome symptoms, not even vomiting but once during his stay in England. He regained his health perfectly, and was able to indulge in every kind of food or drink his appetite might crave. He gained forty pounds in weight. Not long after his return, however, he had a slight attack of his old difficulty, which did not last long, but was followed by a train of symptoms of a more portentous kind. Though still supplied with plenty of adipose tissue, he became the victim of extremes of heat and cold, general lassitude, and at times a sense of impending suffocation, especially after a little extra exertion; but not conscious of any organic disease, he did not think it worth while to medicate much. He found, too, that whatever excited or annoyed him, increased his ailment; whilst on the other hand, so long as he observed quiet, mentally and bodily, he was comparatively free from his troublesome symptoms. Some time in 1877, he consented to take medicine, for what, in my judgment, seemed to be his disease, and for a while amendment followed, aided by the observance of perfect quiet. No sooner, however, did he take to physical exertion, or subject himself to the vexation of petty cares, than he would at once become prostrated. Sometimes he would be obliged to sit down, or, refusing, would chance to fall. Pallid, with haggard look, he sat as one just recovered from a faint; scarcely able, he would still rise, and totter his way along to the house. With the progress of the disease, which did not confine its symptoms to the day, his nights were wretched. While ascending the stair to his room, he was often forced to sit down before reaching the top. In bed he was often awakened from sound sleep by sharp thoracic pains. His breathing was much embarrassed; pulse, though generally regular, at times became fluttering, small, and extremely weak. Unable longer to lie down, he would sleep sitting up in bed. As usual, he did not at these times *snore*. Still later in the disease, the scrotum and inner parts of the thigh got very much excoriated. Two weeks or so before his death, he was induced to send for an "irregular," who, mistaking the disease, gave some medicine, which caused severe and prolonged vomiting. The promised amendment did not follow. Static pneumonia having set in, our patient now suffered from a most painful dyspnœa. Sitting up with his legs overhanging the edge of the bed, his chest reclining on an attendant, he would rest as best he could. His voice became a feeble whisper; a few days in this condition was all that he could endure; the heart grew weary, and stopped.

Inspection of the body was had just before the burial service. A thick layer of fat covered the abdomen and abdominal viscera. Nothing unusual was noticed about the intestines, kidneys, spleen, liver, etc., except, perhaps, a larger amount of fat than usual; and as our attention was directed more especially to the direct cause of death, a minute inspection of these organs was not made, but it is fair to presume that they partook of the general nature of the disease.

The base of both lungs, but especially the left, was engorged with blood, and as was evidenced during life by the rusty sputa, etc., gave proof of static pneumonia—noted above. On pressure a frothy mucus poured out; opening the pericardium a larger quantity of fluid than usual escaped. The muscular walls of the heart looked pale and flabby; cutting into the heart made it only too evident for doubt that we had to deal with a fatty heart. At one point near the left auricle substitution was quite complete; when pressed between the fingers the muscle fibres seemed soft, and broke down easily under pressure.

Dr. Chapoton was kind enough to make a microscopical examination of the heart, and pronounced it not only fatty infiltration, but a true fatty heart—that is a replacement of muscle cells by fat cells.

The mere occurrence of fat between the fasciculi does not constitute fatty degeneration, much less when thick layers of fat are found upon the surface, though both of these may occur to such an extent as to greatly affect the working power of the heart. It were easy to mistake these conditions for a true fatty metamorphosis, moreover when oil globules are seen between, and separating the transverse striæ, for this too may happen to such an extent as to quite obliterate the striæ. Still we are not justified in deducing fatty degeneration. Not until in fact the muscle cells themselves are transformed into fat cells can such degeneration be said to exist. We have then a superposition of fat—fatty infiltration and fatty degeneration.

Co-incident with these as a result of inflammation there may also be an infiltration of lymph deposits passing into organized products. Whether such a result can occur as an acute form from traumatic injury, and prior to any fatty diathesis, I think is quite doubtful. Nothing can be determined of *causation* except a series of vague conditions; no combination can *a priori* be said to produce the disease, and there is not one which has not been in force a thousand times without producing it.

Gross living, with little or no exercise, the free use of highly carbonated food, may be asserted the most efficient causes, and yet it cannot be certain that these alone will produce it. The elementary morbid states are both too many and too complicated to warrant a just conclusion as to their causality. Exception to the theory of high living may be safely inferred from the fact that out of 143 *post-mortems* of patients presenting themselves in a London hospital, Dr. Ogle found 100 with fatty hearts. Advanced life appears to be one of the favorable conditions.

The treatment in this case was of a nutritious non-stimulating character. Arsenic, strychnine, iron and anodyne to quiet the angina pectoris, and at times *absolute* rest. Reflection upon this particular case points to a few impressive symptoms, out of which our *sign* was constructed.

Pursuing then the *exclusive* method, rejecting what seemed merely incidental, and what was not essential to account for the profoundly disturbing cause of the morbid pneumonia, our attention was directed to a set of persisting or frequent recurring symptoms which could only be referred to a disturbance of the circulation. Examination of organs concerned in secretion, excretion, digestion, respiration, etc., did not give evidence of any primary lesion whatever. The absence of valvular lesion of the heart was rather negative; there was nothing in the patient's life; his obesity was not extreme. Depressing influences for several years had not weighed him down.

Apoplectic attacks, without the usual paralysis, had not happened once. Various forms of fever, rheumatism, etc., must also be excluded. Angina pectoris, though more or less present, and possibly dependent upon some nerve lesion, might seem to offer the only solution. Any classification of heart sounds seems wholly inadequate. If asked what it was that more than all else guided me in my diagnosis, my answer must be *the feeble* pulse, owing to an inherent *weakness of the heart*, which reflected upon the nervous system, gave rise to the angina and dyspnœa, impending suffocation, physical prostration, etc.

It was not possible that with such a limited supply of impoverished blood the various organs could do their work in a healthy and vigorous manner. The labor of translating one's *impressions* on seeing a case into language at once intelligible and conclusive to those who have not seen the like or similar cases must always be difficult.

Such impressions, when not the product of prejudice or foregone conclusions, should not be summarily dismissed. They but represent so many points of testimony, which from their very conflicting nature demand on our part a severer scrutiny of their evidential character. That several diagnosticians, looking at precisely the same case, should come to different or opposite conclusions, ought not to be thought more remarkable than that twelve jurymen, hearing the same testimony, should decide diversely. The enumeration of a class of symptoms thought to be *essential* to establish a given disease, cannot be *felt* with the same incisiveness by one who only hears them narrated, as they are by him who witnesses them himself.

Two other points as deductions from this brief recital remain to be noticed.

First—That if by pathology we are to understand the metamorphosis or other change of tissue from the incipiency of disease, and during its historical development to its close the knowledge of such change must always be more or less defective; and yet, except perhaps in a few isolated cases, enough can be made out to confirm a clear diagnosis. It is to these *essential* characters that our attention should be especially directed. Too often indeed, pathology, so far at least as tissue change is concerned, must be ignored, when it becomes too evident that we can only watch the tendency toward death, and if possible avert it by establishing a healthier physiological process. To this end, secondly, our treatment is properly directed, so that when the animal functions, from whatever cause (being for the present beyond our reach), are likely to sink, we may bridge over the chasm between failure and cessation.

Correspondence.

"Perfect Ventilation"—A Criticism.

To the Editor of the Detroit Lancet:

DEAR SIR—On page 466 of your valuable journal, in speaking of "A Perfect Ventilation" (Houses of Parliament, London, England), it is mentioned that "the air is taken from the quiet court-yards of the houses; it is dried and warmed in cold weather," etc. It seems to me that either some mistake has been made in the statement of methods, or the ventilation is *not* perfect. Should it not be said that the air is *moistened* and warmed in cold weather? In London, as in Michigan, June seems to be the month most favorable to human life. Taking the meteorological conditions in June as a good standard by which to judge the most favorable conditions, I find that the mean temperature at London in June is about 60° Fahr., and that the air is then so moist that its per cent of saturation is about 72. Using M. Glaisher's tables, it appears then that a cubic foot of the London air in June contains about 4.23 grains of vapor of water. In January the mean temperature of the air in London is about 38.6° Fahr., and its per cent of saturation is about 87; so that (according to Glaisher's tables) each cubic foot of air then contains about 2.60 grains of water, which is less than is found in the June air by 1.63 grains in each cubic foot of air.

By what standard of perfection can a system of ventilation be called "perfect" which provides for *drying* air which is already much dryer than the air during the month most favorable to human health?

Very respectfully,
HENRY B. BAKER.

LANSING, MICH., June 17, 1878.

[The criticism of Dr. Baker seems to us curiously to miss the mark. The sentence which he quotes in part reads "The air * * * is dried and warmed in cold weather by being passed over a large number of (heated) metal plates." Such a statement on the face of it, lacks scientific exactness. The process described cannot *dry* the air in the sense of reducing the absolute per centage of moisture. Warming the air, however, increases its capacity for moisture, and therefore for all practical purposes renders it drier, and during cold rain storms, when the atmosphere is surcharged with moisture, the effect of raising the temperature 12° Fahr. will be to bring down the amount of moisture some thirty per cent below the point of saturation, viz.: to a condition similar to that of the healthiest month in the year. It is true that in really cold weather it will oftener happen that the air after warming will prove deficient in moisture; but we are distinctly told in the account criticised by Dr. Baker (LANCET, p. 467) that provision is made for keeping the amount of moisture in the air supplied to the building up to what is regarded as a healthy standard. The one thing for which adequate provision does not appear from this imperfect account to be made is the removal of surplus moisture from the chilled summer air.—ED.]

Reports of Societies.

American Medical Association—Twenty-ninth Annual Meeting.

The association opened its sessions in the city of Buffalo, N. Y., June 4th, 1878, at 11 A. M., the President, Dr. T. G. Richardson, of New Orleans, being in the chair. About him on the platform were the vice-presidents, secretaries, and several of the former presidents of the Association. Notable in form and mien were Drs. S. D. Gross, J. M. Toner, H. P. Bowdich and N. S. Davis. The meeting having been called to order, prayer was offered by Rev. L. Van Bokelen, D. D.

An admirable address of welcome was then offered by Thomas F. Rochester, of Buffalo.

Charges against various medical societies and objectio against some applicants for admission were read, and referr to the judicial council. A number of gentlemen were receive as members by invitation. Still others were elected permanent members. A telegram from Dr. J. Marion Sims announced his good wishes for the prosperity of the association.

After some announcements by the chairman of the Committee of Arrangements, the President delivered his annual address.

It was devoted to the discussion of medical education, *original investigation*, and State medicine. Briefly he showed that great results had followed the efforts of the association to advance the standards of medical education. Constant agitation of the subject he believed to have been the secret of past successes and the most hopeful course in the future. In this way the Association creates and directs public professional sentiment, and so acts as a vast power for good. We must elevate the tone and sentiment of the masses of the profession and at the same time enlighten the people in regard to the absolute necessity of protracted study and clinical observation in every one claiming their confidence in his ability to treat disease. To accomplish all this he proposed the adoption of some uniform plan by which the entire sixty thousand physicians of the land may be united in district organization, and through representation establish a living union in this central body.

He regarded it the duty of the Association to do something more than it had done in the past, to foster the spirit of investigation and discovery in those departments which directly relate to medicine. One method of effecting this is for the profession to endeavor to obtain from our Federal Congress aid for the prosecution of original investigation. The other method leaves the matter directly with the Association, and is well stated in the following words:

"1. Offer four annual prizes of not less than two hundred and fifty dollars each, to be awarded at the close of the second year after announcement, for strictly original contributions to medical and surgical progress.

"2. Empower the chairman of each of the four sections designated numerically in the Plan of Organization as 1st, 2d, 3d and 5th, to appoint annually (and if possible before the adjournment of the session of the Association) a committee of three members, of acknowledged ability and wisdom, who shall, as soon as practicable, select and publicly announce, for competitive investigation and report, a subject belonging to one or the other of the branches included in the title of the section.

"3. Let it be also the duty of each of the chairmen mentioned to appoint annually a committee of three experts who shall carefully examine the essays presented, and, if any one shall be found worthy of the prize, to recommend its award by the Association.

"4. Require all competing essays to be placed in the hands of the chairmen of the respective committees of award on or before the first day of January preceding the meeting at which the prizes are to be announced.

"5. All prize essays shall be considered the property of the Association.

"6. The names of the competitors shall be kept secret from the committees of examination.

"7. Membership upon either of the two committees shall not debar from membership on the other; nor shall membership of the first exclude the member from becoming a competitor.

"By some such scheme as this, of which only the salient features have been here sketched, there is reason to hope that original investigation may be stimulated, and contributions of a superior character obtained. The objection, which I fancy has already suggested itself to nearly every one who hears my voice, is the want of funds. To this I reply:

"1. It can be clearly demonstrated that by the practice of only a very little economy in current expenses there will be an ample balance in the treasury for this and other important measures.

"2. It is not very likely that all four of the prizes will be awarded every year.

"3. If the receipts from annual assessments should prove inadequate, the rate may be increased to eight or ten dollars, as was proposed at the meeting of 1873.

"4. I am quite confident that money will be voluntarily contributed for these and other similar objects, provided the Association shall place itself in a legal attitude to receive and disburse such gifts. Upon this point, which I deem of no small importance, I beg leave to make a few remarks:

"So long as the Association remains unincorporated, it is, of course, an organization entirely unknown to the laws of the land. It cannot legally accept or hold property of any sort whatever, and is therefore prohibited from entering into any formal engagement involving the payment of moneys for any specified object. It has no authority to collect its dues, nor can it be compelled to pay its debts. As it cannot hold property, it, of course, cannot receive bequests, nor even donations, with limiting restrictions as to their use. Now, I would ask whether it is not within the bounds of reasonable expectation that, if this disability should be removed, funds would from time to time be committed by will or otherwise to the Association for immediate use as prizes, or for the endowment of research. I should be greatly disappointed if we should not witness after a while the gift of considerable sums of money for specified purposes, by persons without, as well as within, the circle of the profession. This has been the result elsewhere, and there is reason to believe that, as the Association shall continue to gain upon the confidence of the people, the same will occur here. The prizes which are annually offered in the great societies of London and Paris, amounting to many thousands of dollars, are derived mainly from such sources; and I sincerely believe that it has been for want of opportunity that this society has not been made the recipient of similar gifts.

Moreover, if the Association should be incorporated, and its funds be placed in the control of administrators, would not this insure economy in expenditures, and thus secure not only the insignificant sums proposed for prizes, but enable us to double the same within a very short time?

"An act of incorporation can be readily obtained from any one of the States without restricting the Association as to its place of meeting. It will only be necessary that the trustees or administrators shall reside in, or at least hold their meetings within the bounds of the State granting the charter."

The objects of State Medicine are tersely stated as follows:

"1. The prevention or arrest by official measures of all diseases which are not in their nature strictly limited to the individual, but which, from external causes, or from their specific characters, have a tendency to spread throughout families, institutions, and communities, and which cannot be otherwise controlled. This is the aim of public hygiene; which is the first grand division of State Medicine.

"2. The qualification of men by suitable education for the duties involved, not only in the practice of medicine, but also of public hygiene, the State not only directing the studies which they shall follow, but determining by examination when they have reached the standard of acquirement necessary for the proper performance of their great trusts.

"3. The enactment and enforement by the State of such laws as shall secure to every citizen the benefit of the services of the best professional experts in all questions of a medico-legal character.

"In brief, State Medicine may be considered to include public hygiene, medical education and medical jurisprudence, to which may be added the establishment, control and sustentation of public institutions for the sick and infirm."

The attainment of these objects can only be gained as men are raised up, fully trained in such matters, and apt to teach all whom they may reach.

These teachers should include all physicians and Christian ministers.

To aid in training these teachers, it was suggested that there be appointed a special committee of leading sanitarians to prepare a somewhat elaborate address to the profession and the public, setting forth the transcendent importance of the subject, presenting a summary of sanitary science, pointing out the best methods of studying and teaching the same, and demonstrating the great benefits to be derived therefrom by the individual and the community in general.

Such an address might possibly be compressed into sixty or eighty pages; and twenty or thirty thousand copies divided among the State Medical Societies, with instructions to distribute them throughout every county, would prove of inestimable benefit to the great cause which we are endeavoring to promote.

This work should be followed closely by the establishment of sanitary laws covering every foot gained.

Of central Federal legislation, he thought that only two subjects could legitimately fall within its sway. These were sea-board quarantine, and the pollution of water-courses.

Respecting all other sanitary matters, each State has within its own limits a power practically supreme. Upon this power the State Medical Societies should concentrate all their influence to effect the necessary legislation.

In conclusion, the speaker emphasized the fact that the "hope of progress in State Medicine lies in the education of the people."

The enthusiastic and forcible delivery of the address, added to its intrinsic merits, kept the vast audience almost spell-bound to the end.

The address was referred to the President and his four immediate predecessors, to consider the suggestions made, and report.

Dr. Wm. Brodie, and Dr. L. A. Sayre presented their reports as delegates, respectively, to the Canadian Medical Association, and the British Medical Association.

The following report on the action of the American Delegation before the International Medical Congress of Geneva, by

Dr. E. Seguin, of New York, was then read by the Secretary:

"*Mr. President and Confreres:*

"The delegates of the American Medical Association to the International Medical Congress of Geneva were charged, 'to advocate the adoption of a progressive uniformity of means of observation and record, with the concurrence, if possible, of the members of this Congress who would be found there engaged in advocating the application of uniformity in this and other departments of science.'

"Conformably to these instructions, in order to prepare as many adhesions as possible to the idea they represented, your delegates exposed it before the British Medical Association, meeting in July, in Manchester, and before the French Association for the Advancement of Science, meeting in August, at Havre, previously to accomplishing their direct mission in September, before the International Medical Congress of Geneva.

"There two of your delegates were elected Honorary Presidents, and found sympathies in the representatives of all nations. Moreover, the delegates of the late International Pharmaceutic Congress of St. Petersburg, and those of the preceding International Medical Congress of Brussels, joined their efforts to carry the question of uniformity in all the branches of physic.

"It was carried with enthusiasm from the Section of General Medicine to the General Meeting of the Congress, whose resolutions are too important and binding to not be at least summed up before you.

"For physicians and surgeons, the principle accepted by the Congress is a gradual international uniformity of their nomenclatures, scales, measures, calibers of instruments; of their records of private and hospital practice, of physiological experiments, of medical climatology, barometry, thermometry, statistics, etc.

"In pharmacy the Congress of Geneva has accepted the conclusions voted at St. Petersburg and Brussels, as presented by Prof. Gille and Matsen:

"1st. The adoption of a universal Pharmacopœia, to be written in Latin.

"2d. The decimal system for weights and measures, and the centigrade scale for temperatures.

"3d. A uniform nomenclature (probably that of Berzelius).

"4th. The chemical preparations to be of determined strength and purity; and the pure drugs to be of assayed strength, if possible.

"5th. The Galenic preparations made as simple as possible and described according to a uniform plan.

"6th. The other pharmaceutical preparations to be made uniform (that is, those which are powerful, like tincture opii aconiti, nucis vomicæ, hashish, podophyllin, elatherium, etc.)

"7th. Physicians to be left free and responsible for the non-officinal ingredients and doses of their magistral prescriptions.

"At its last meeting, the Congress of Geneva nominated a Commission charged to bring these matters to a practical maturity for acceptance by the profession at large, and for the sanction of the next International Medical Congress.

"The Commission, in whose name this document comes for your approval and action, is composed as follows:

"*President*—Patchiotti, Professor of Surgery in the University of Turino.

"Eason Wilkinson, Actual President of the British Medical Association.

"Marion Sims, late President of the American Medical Association.

"Gubler, Professor of Therapeutics of the School of Paris.

"Mehu, Chief Pharmacist of the Hospital Necker, Paris.

"Matson, Vice-President of the Pharmaceutic Society of Copenhagen.

"Critchett, Professor of Ophthalmology, London.

"Brun, Professor of Pharmacy in the University of Geneva.

"Gille, Professor of Pharmacy, Delegate of the I. M. Congress of Brussels. General Secretary of the Commission of the I. M. C. of Geneva.

"Edward Seguin, Acting Secretary of the same Commission for the United States.

"This act of the I. M. Congress gives an international life to an American idea, and imposes upon us the obligation of keeping ourselves at the head of the movement we have initiated.

"The physicians who are founding the vital statistics of this country, those of New York in particular, try to harmonize their documents with those of the Asiatic and European populations, and do gain new points of uniformity in every new issue of their tables. But, as yet, their statistics are only *vital* par antiphrase or irony, since they contain not much more than mortuary figures, and nothing *medical* but the contested names of diseases from clashing nomenclatures.

"The pharmacists planning just now a new American Pharmacopœia, have received communication of the conclusions arrived at by the Congress of Paris, St. Petersburg, Brussels, Geneva, and will heed the warning of Prof. Matson, of Copenhagen, that *pharmacists can not succeed in founding a uniform pharmacopœia without the concourse of physicians.*

"The decimal system adopted by medical societies in several States will soon be the legal measure of the centigrade scale of temperature in making headway in both medical practice and posology.

"Lastly, the idea has gained ground that physicians owe as strict an account of the vital forces entrusted to their care as the banker of his operations—an account which can be rendered only upon a daily record of the anomalies of the great functions, and of their treatment.

"But these, our progress toward uniformity, need be co-ordained to receive the sanction of the next International Medical Congress.

"In consequence, we propose that you name a Commission on Uniformity in Physic, with power to adjoin such specialists in the arts accessory to ours as could give greater practicability and precision to our plans, said commission to prescribe and recommend the measures of uniformity actually ready for acceptance; and to present this plan to the next meeting of the A. M. A., there to be adopted or modified previously to being presented as the American share in the work, to the International Medical Congress, which will meet in Amsterdam three months later.

"The delegates of the A. M. A. to the Inter. Med. Congress of Geneva.

"MARION SIMS,
"THOMAS DRYSDALE,
"EDWARD SEGUIN,
"*Reporter.*"

This was referred to the Committee on Publication.

Adjourned till next morning at 9 A. M.

The second general session of the Association began as per adjournment. After President Richardson had called the meeting to order, a considerable number of gentlemen were elected members by invitation. Letters of regret were read from Drs. B. A. Vaughn, of Columbus, Miss., and Dr. Robert Battey, of Rome, Ga.

The following report was then offered by the Judicial Council:

"The charges against Dr. J. M. Keller, presented by Dr. G. W. Lawrence, were dismissed as being unworthy of any consideration.

"The charges against the society of Grand Rapids, Mich., presented by Dr. P. J. Dwyer, are incapable and unaccompanied by witnesses and testimony whereby the Judicial Council might be able to act.

"The Arkansas petitions referring to the State Medical Society, were dismissed without action.

"The charges against the Michigan State Society, by Dr. W. W. Jones, will be reported upon by Dr. N. S. Davis, Chairman of the Judicial Council.

"The charges against W. T. Barr, M. D., of Abingdon, Va., presented by Dr. Ulrich, of Chester, Pa., were dismissed by the Council.

"S. N. BENHAM, M. D.,
"*Secretary.*"

"P. S.—In reference to the communication from the State Medical Society of Arkansas, notifying the Association that the Hot Springs and Garland County Medical Society was not recognized by the State Medical Society, and protesting against the reception of any member of that Society, it is decided that under the By-Laws of this Association, said Hot Springs and Garland County Society loses its recognition with the Association from the date of its severance from the State Society."

Prof. Davis then ascended the stage and read the appended report of the Judicial Council concerning the charges against the Michigan State Medical Society, referred by the Association at the annual meeting in June, 1877:

"The charge in this case was alleged violation of the Code of Ethics on the part of the Michigan State Medical Society, in electing as a delegate to this Association Dr. E. L. Dunster, of the University of Michigan, knowing him to be engaged in aiding and abetting the graduation of students devoted to an exclusive dogma in medicine.

"After a most careful examination of the Code of Ethics, as it has appeared in the transactions of this Association from year to year, the Judicial Council fail to find any section or paragraph in it that refers, even remotely, to the practice that constitutes the foundation of the charge under consideration. That any member of the medical profession proper should ever engage in teaching, examining and certifying to the qualifications of students, knowing that such teachings and examinations were to aid said student in obtaining a diploma directly admitting them into a few—a fraternity of irregular practitioners—was evidently not contemplated by the framers of our Code of Ethics; and hence they inserted no clause or section bearing upon that subject. The only provision in the Code referring to those engaged in an attempt to practice medicine in accordance with some 'exclusive dogma,' is in the section regulating consultations at the bedside of the sick. If the Judicial Council of this national organization should assume that the section of the Code just referred to indicated the 'spirit' of those who framed and adopted it, and on that assumption apply it to matters and practices entirely foreig to those mentioned in the doctrine itself, it would not only vi late all the accepted principles of judicial construction, but would establish a precedent in latitudinous construction of the Ethical Code more dangerous to the best interests of the profession than all the evils sought to be remedied in the case under consideration.

"It is true that this Association has adopted at different times two resolutions having reference to the subject involved in the charge against the Michigan State Medical Society, which still stand as expressions of opinions unrepealed. But these resolutions constitute no part of the Code of Ethics; neither is obedience to them enjoined by the Constitution and By-Laws on State and Local Medical Societies as a condition of representation in this Association. Therefore, while deprecating the practice of aiding or abetting in any way the teaching and graduation of students known to be supporters of irregular and exclusive dogmas in medicine, as beneath the dignity of right-minded teachers of an honorable and liberal profession, your Judicial Council can find no clause in either the Constitution, By-Laws or Code of Ethics, as they now exist, under which the charge against the Michigan State Society can be entertained and adjudicated."

Dr. J. M. Toner moved to refer the report back to the Judicial Council.

Dr. S. C. Busey, of Washington, seconded the motion, and remarked that the time had come when the same ethical law that governs the general practitioner should be applied to the medical teacher.

Drs. J. J. Woodward, Thomas Menees and N. S. Davis further discussed the matter, but before any action could be taken the next order of business had arrived.

Dr. Henry Smith, Chairman of the Section of Surgery and Anatomy, now delivered his annual address. His topic was "Certain Points on the Pathology of the Bones, especially Tubercle." Very clearly he brought to light the new views respecting the relation of the bones to the origin of white and red blood corpuscles, and in this way to the introduction of diseased protoplasmic elements into the system, causing septicæmia. Further, he discussed the original progress of tubercles in the bones, and their relation to Pott's disease and hip joint affections. Very ably the author elaborated the latest observations and discoveries in this interesting, yet recondite field. The address was referred to the Publication Committee.

Dr. Frank Hamilton, by request, presented the essential features of an able paper, read the day previous by Dr. E. Seguin, before the section on State Medicine and Public Hygiene. He heartily indorsed the paper, and by his own remarks added much to its usefulness. In closing, Dr. Hamilton offered the following resolution, which was unanimously adopted:

"*Resolved*, That in the opinion of this Association, medical men ought to have a voice in the construction and location of public school buildings; in the question as to the age at which children should be admitted, the hours of study, and the general management of these institutions; and to this end it is believed to be necessary that one or more intelligent physicians should be placed upon Boards of Education, Boards of Trustees, and upon other similar boards having the control of public education and schools."

Dr. E. W. Jenks, Chairman of the Section on Obstetrics and Diseases of Women and Children, now gave the annual address of the Section. His theme was "The Causes of Sudden Death of Puerperal Women." He showed, that of all heart lesions, mitral stenosis was most productive of sudden death during the puerperal state. Endocarditis, old or recent, was very apt to be rescinded by the puerperal state, and to take on the ulcerative form. Thus material for emboli was produced, and sudden death rendered liable. The relations of recent discoveries respecting the coagulation of the blood to the complications of septicæmia were fully pointed out. The causes of sudden death were grouped under those arising from the circulatory system, from the nervous system, from blood poisoning. Altogether, it was a very comprehensive review o our knowledge of the matter.

On motion, it was referred to the Appropriate Section.

A recess of ten minutes was taken to select the committees on nomination, and the following were appointed:

Arkansas, A. Linthecum; Colorado, J. F. Bancroft; Connecticut, B. H. Catlin; District of Columbia, J. M. Toner; Georgia, W. F. Westmoreland; Illinois, Moses Gunn; Indiana, James F. Hibbard; Iowa, G. P. Hanawald; Kansas, C. V. Mothram; Kentucky, J. M. Bodine; Louisiana, O. P. Langeworthy; Massachusetts, C. T. Collins; Maryland, T. B. Evans; Maine, S. H. Weeks; Michigan, J. R. Thomas; Minnesota, C. P. Adams; Mississippi, W. M. Compton; Missouri, J. M. Allen; New Jersey, S. Lilly; New York, J. P. Gray; New Hampshire, Dr. Adams; North Carolina, Charles Duffee, Jr.; Ohio, J. W. Russell; Pennsylvania, A. Fricke; Rhode Island, T. C. Lawton; Tennessee, J. H. Van Deman; Virginia, J. L. Cabell; Wisconsin, W. Kempster; West Virginia, John C. Hupp; United States Navy, Dr. Duvall; United States Army, Dr. J. R. Smith.

Dr. J. R. Bronson of Massachussetts, offered the following preamble and resolutions:

"*Whereas*, By the report of the Judicial Council submitted this day, we are informed that the ethical code of this Association is imperfect in that it does not recognize by its letter a conceded violation of the spirit of our profession in its relation to irregular medicine. Therefore,

"*Resolved*, That said Council be instructed to submit to this Association at its next meeting, for its consideration, an amendment to the code covering this omission."

The above was on motion referred to all the members of the Judicial Council as a committee.

Association now adjourned till Thursday morning.

At this hour it re-assembled. Several other gentlemen were elected members by invitation.

The Judicial Council decided that in the matter of the Ann Arbor Medical and Surgical Society (which had been objected to because it claimed five delegates), only two delegates could be allowed.

Dr. A. N. Bell, of Garden City, offered the following resolution, which was laid over until next year:

"*Resolved*, That Section Four, on Medical Jurisprudence and Psychology, and Section Five, on State Medicine and Public Hygiene, be consolidated into one Section as Section Four."

JUDICIAL COUNCIL REPORT.

Dr. N. S. Davis, of the Judicial Council, presented the following report proposing an amendment in addition to the Code of Ethics, and action on the same was deferred according to the rules for one year:

"In obedience to the instructions of this Association, the Judicial Council, acting in the capacity of a Committee, have unanimously instructed me to report to your Honorable Body the following amendment and addition to paragraph 1, article 1, of the second division of the Code of Ethics, under the general heading, 'Of the duties of physicians to each other, and to the profession at large,' and the special heading, 'Duties for the support of Professional Characters.' The same, when finally adopted, to be added at the end, and to constitute a part of said paragraph 1, of article 1. The proposed addition is in these words: 'And hence, it is considered derogatory to the interests of the public, and the honor of the profession, for any physician or teacher to aid, in any way, the medical teaching or graduation of persons, knowing them to be supporters and intended practitioners of some irregular and exclusive system of medicine.'"

Dr. J. M. Toner, of Washington, D. C., Chairman of the Committee of Necrology, presented his annual report. It was a very voluminous document, containing sketches of seventy-five physicians who had died during the past year, and owing to its great length, was not read, but referred at once to the Committee on Publication.

Dr. A. L. Loomis, of New York, Chairman of the Section on Practical Medicine, Materia Medica and Physiology, was then introduced, and delivered an able, exhaustive and interesting address. He noticed some of the important advances made in Practical Medicine, Physiology and Materia Medica, and also discussed at length the climatic treatment of pulmonary phthisis. His address concluded with the following practical suggestions:

"It seems to me that the necessitities of our time are demanding the establishment not only of well organized and thoroughly equipped sanitariums by the sea, in the mountains, in the cold regions of the north, and in the warm regions of the south, but that our mineral springs should be utilized for the cure of disease. No one doubts but they are equal, if not superior, to those of the old world; yet to-day we know more of the virtues of Karlsbad, Kissengen, Vichy, and Hunyadi waters, than those of Saratoga, Virginia, Arkansas, and Colorado. Has not the time come, gentlemen, when some organized action should be taken in this matter?"

Referred to Section Five for discussion.

Dr. James P. White offered the following:

"*Resolvēd*, That a committee of five be appointed to confer with General Myer, upon the subject of making observations as to the existence of ozone in various localities, and take such other steps and measures in the matter as may be necessary for the success of the object."

In seconding the above, Dr. Davis, of Chicago, briefly stated what had already been done to attain the object by the profession since 1874. After a discussion by Drs. Busey, White, Bell, Bronson, Leonard, Loomis and Davis, the resolution was adopted.

Dr. Toner, of the Committee on Nominations, announced that they were ready to report. Accordingly, Dr. Hupp, of West Virginia, read the following, which was, on motion of Dr. White, accepted and adopted unanimously:

REPORT OF THE COMMITTEE ON NOMINATIONS.

After due consideration the Committee on Nominations respectfully report that they have nominated the following gentlemen for the various offices named, to wit:

President—Theophilus Parvin, M. D., of Indiana.

Vice-Presidents—A. J. Fuller, M. D., of Maine; W. F. Westmoreland, M. D., of Georgia; John Morris, M. D., of Maryland; John H. Murphy, M. D., of Minnesota.

Treasurer—Richard Dunlingson, M. D., of Pennsylvania.

Librarian—Wm. Lee, M. D., of District of Columbia.

Committee on Library—John Eliot, M. D., of District of Columbia.

Next Place of Meeting—Atlanta, Georgia.

Time of Meeting—The first Tuesday in May, 1879.

Assistant Secretary—Scott Todd, M. D., of Atlanta, Ga.

Committee of Arrangements—J. P. Logan, Chairman; H. V. M. Miller, G. G. Crawford, H. L. Wilson, J. F. Alexander, J. M. Johnson, Charles Pinçkney, V. H. Tallioferro, J. T. Johnson, of Atlanta, Ga.

Committee on Prize Essays—Robert Battey, of Rome, Ga.; J. G. Westmoreland, of Atlanta, Ga.; Wm. A. Love, of Atlanta, Ga.; Robert Kidley, of Atlanta, Ga.; Henry F. Campbell, of Augusta, Ga.; J. H. Van Deman, of Chattanooga, Tenn.

Committee on Publication—Dr. Wm. B. Atkinson, Chairman; T. M. Drysdale, M. D.; A. Fricke, M. D.; S. D. Gross, M. D.; C. Wister, M. D.; R. J. Dunglinson, M. D., of Pennsylvania; and Wm. Lee, M. D., of District of Columbia.

The committee also report the following nominations for Chairmen and Secretaries of Sections for 1879:

I. Practice of Medicine, Materia Medica and Physiology—Dr. Thomas F. Rochester, of Buffalo, N. Y., Chairman; W. C. Glasgow, of St. Louis, Mo., Secretary.

II. Obstetrics and Diseases of Women and Children—E. S. Lewis, of New Orleans, Chairman; J. R. Chadwick, of Boston, Mass., Secretary.

III. Surgery and Anatomy—Moses Gunn, M. D., of Illinois, Chairman; Dr. J. R. Weist, of Indiana, Secretary.

IV. Medical Jurisprudence, Chemistry, and Psychology—Dr. Wm. M. Compton, of Mississippi, Chairman; L. M. Eastman, of Maryland, Secretary.

V. State Medicine and Public Hygiene—Dr. John S. Billings, of District of Columbia, Chairman; Dr. J. T. Reeve, of Wisconsin, Secretary.

Alabama, Jerome Cochran; Arkansas, W. B. Welsh; California, W. F. Cheeny; Colorado, C. Demison; Connecticut, C. A. Lindsley; Delaware, William Marshall; District of Columbia, T. Antisell; Georgia, J. W. Bailey; Illinois, H. A. Johnson; Indiana, James F. Hibbard; Iowa, J. A. Blanchard, Kansas, D. W. Stormont; Kentucky, S. Brandeis; Louisiana, Sanford E. Challie; Maine, A. P. Snow; Maryland, T. B. Evans; Massachusetts, H. I. Bowditch; Michigan, H. B. Baker; Minnesota, C. P. Adams; Mississippi, Wort Johnson; Missouri, Jacob Geiger; New Hampshire, G. P. Conn; New Jersey, E. M. Hunt; New York, A. W. Bell; Ohio, J. C. Reeve; Pennsylvania, Benjamin Lee; Rhode Island, E. M. Snow; South Carolina, R. A. Kinlock; Tennessee, T. A. Acheson; Texas, H. W. Brown; Virginia, F. D. Cunningham; Vermont, L. C. Butler; West Virginia, E. A. Hildreth; Wisconsin, J. T. Reeve; Florida, G. W. Betton; North Carolina, C. J. O'Hagen; United States Army, Joseph Smith, of Fortress Monroe; United States Navy, Joseph Wilson, of Washington, D. C.; Oregon, H. Carpenter.

Committee on Necrology—J. M. Toner, M. D., of the District of Columbia, Chairman.

California, Henry Gibbons; Alabama, J. S. Weatherby; Arkansas, R. G. Jennings; Connecticut, G. W. Russell; Delaware, L. P. Buck; Colorado, R. G. Buckingham; District of Columbia, W. W. Johnston; Georgia, T. S. Hopkins; Illinois, J. H. Hollister; Indiana, John Moffit; Iowa, C. C. Bradley; Kentucky, L. P. Yandell; Maine, E. F. Sanger; Massachusetts, J. R. Bronson; Maryland, J. H. Hartman; Michigan, W. F. Breakley; Minnesota, C. C. Cross; Missouri, A. J. Steele; New

Jersey, John Blane; North Carolina, N. J. Pitman; Louisiana, Samuel Logan; New York, J. P. Gray; Ohio, Thad. H. Reamy; Oregon, —— ——; Pennsylvania, Thomas H. Helsby; Rhode Island, C. H. Fisher; South Carolina, Manning Simmons; Tennessee, Thomas Menees; Texas, J. H. Stalnaker; Virginia, L. S. Joynes; Wisconsin, D. Mason; Vermont, O. F. Fassett; Mississippi, P. F. Whitehead; Kansas, C. V. Mattram; New Hampshire, L. G. Hill; West Virginia, Robert W. Hazlett; United States Army, J. J. Woodward, of Washington, D. C.; United States Navy, Joseph Wilson, of Washington, D. C.; Nebraska, J. H. Peabody.

Judicial Council—To fill a vacancy caused by death, John P. Gray, of Utica, N. Y.; in place of the seven whose terms expire at this meeting: D. A. Linthicum, of Arkansas; Foster Pratt, of Michigan; A. Woodward, of Connecticut; J. M. Toner, of District of Columbia; J. H. Van Deman, of Tennessee; S. M. Benham, of Pennsylvania; R. N. Todd, of Indiana.

All of which is respectfully submitted.

J. M. TONER, *Chairman.*
JOHN C. HUPP, *Secretary.*

After some announcements by the Committee on Invitations, Prof. Davis, of Chicago, presented the following majority report of the Special Committee on the recommendations contained in the annual address of President Bowditch, delivered in Chicago last year:

REPORT ON THE PRESIDENT'S ADDRESS.

"So much of the recommendations made in the address of Ex-President Bowditch, as related to the revision of the United States Pharmacopœia, was definitely disposed of by the action of the Association at its last annual meeting. The remaining recommendations relate chiefly to alterations of the constitution in relation to membership and the ratio of representation from State and local Medical Societies, and to changes in the By-Laws regarding the working of the several Sections. The recommendation of the last annual address concerning the permanent membership of the Association would require such changes in Article II of the Constitution as to make the permanent members consist of all those members of the profession who were regular members of the several State Medical Societies, and to remain such so long as they remained members in good standing of their respective State Medical Societies.

"And to change the ratio of representation so as to read, that 'each State, County and District Medical Society, entitled to representation, shall have the privilege of sending to the Association one delegate for every twenty of its regular resident members,' etc., instead of one for every ten, as heretofore. The idea briefly stated is, that the nominal membership, under the name of permanent membership, should embrace as nearly all the regular practitioners of the United States, in good standing with the respective State Medical Societies, as possible, while the annual meetings of the Association should be made smaller and more select by requiring twenty instead of ten members as the number entitled to appoint a delegate. After a careful examination of the whole subject, the undersigned members of your Committee do not deem it wise to adopt the changes proposed for the following reasons:

"1st. There is at present no uniformity in the plans of organization of the several State Medical Societies. In some of them all who become members of the County or District Medical Societies are recognized as members also of the State Society. In others the membership is purely representative, consisting exclusively of delegates elected by the County Societies of the State. In still others it is mixed, consisting partly of delegates from local societies and partly of members elected from year to year by vote.

"And in one or more instances the State Medical Society is substantially an Annual Mass Meeting, consisting of such regular practitioners as choose to attend and participate in the work of the Society. Thence to adopt the whole membership of the several State Medical Societies as the permanent membership of this Association would be to render it so unequal in the different States, and withal, so changeable and uncertain as to be of no practical value. The present mode of obtaining permanent membership by first serving as a delegate selected by some recognized State or local Society, affords some guarantee, both of fair professional ability and of personal interest on the part of the member, and yet accumulates members in a nearly equal ratio in all parts of the country where local organizations exist.

"2d. So long as all the important scientific work of the Association is done in the several Sections, and all its ethical or judicial business in an organized council, leaving only the social and general supervisory interests of the profession to the General Sessions, there can be no important practical advantage in lessening the number of delegates to each annual meeting. On the contrary, the larger the number that annually assemble the greater will be the influence diffused through the profession, and the more ample the fund in the treasury for printing the transactions and promoting the scientific work of the Association. The recommendation in the address covering the working of the Sections, aims at the accomplishment of two objects, namely, the securing of a higher grade of papers for the consideration of the Sections and their announcement long enough before each annual meeting to become known to the profession at large, and a closer scrutiny of all papers and reported discussions before their transmission to the Committee on Publication.

"To accomplish the first, it is proposed to have a standing committeee of five members, selected by the Judicial Council, the term of office of one of whom shall expire each year, the vacancy to be filled by the Council, so that after the first four years each member of the committee would hold his position five years. The duty of this committee will be to solicit from able and eminent members of the profession papers and communications on important subjects, sufficient to constitute the basis of the work of each section annually, and to publish the list for each year in time both to become generally known to the profession, and to be incorporated in the programme of each meeting by the Committee of Arrangements.

"To accomplish the second, it is proposed that all reports and papers submitted to the Sections, whether read wholly or by abstract, shall be subjected to the examination of experts, whose names shall be unknown to the profession, and shall receive their sanction before they can be transmitted to the Committee on Publication. In the amendments to the By-Laws proposed by Dr. S. C. Busey, and now pending for the consideration of the Association, it is proposed to accomplish the same object by a committee of three on essays appointed by each Section.

"While the By-Laws as they now exist, make it the duty of each Section to refer all papers and reports presented to them which cannot be fully considered, or about which there may be some doubts, to special subcommittees who have thirty days for making the necessary examinations and return of the papers to the Permanent Secretary with their written recommendations covering them, the present By-Laws also define clearly the rules that should govern the Sections and their subcommittees in the disposal of papers. If the officers and members of each Section would make themselves familiar with the By-laws and Ordinances as they now are, they would be found simple in method, fully guarding against hasty and injudicious references to the Committee of Publication, yet sufficiently liberal to encourage, rather than repress voluntary contributions, especially relating to original investigations, from the younger members of the profession.

"The changes proposed, both in the recommendations of Dr. Bowditch and the proposed amendment of Dr. Busey, would render the workings of the Sections more complex; and if carried into practical effect, would tend strongly to discourage volunteer papers from the young who have most time and ambition for original investigation, by giving the solicited papers from those who were already eminent in the profession the preference. And yet, even the most eminent in our ranks would be found to furnish very few papers if they were required to comply literally with the proposed rules, to send their papers to a committee in advance of the annual meeting, and then have them transferred directly to the hands of unknown experts for further criticism afterwards. After a careful review of the whole subject, indeed by many years of careful observation in the two Sections of the Association, the undersigned would recommend no change in the present By-Laws and ordinances regulating the working of the Sections, except the striking out of the paragraph in Section 14, of the By-Laws, commencing with "Papers appropriate to the several Sections," etc., and inserting in its place the following:

"'It shall be the duty of every member of the Association who proposes to present a paper or report to any one of the Sections to either forward the paper, or a title indicative of its contents and its length, to the Chairman of the Committee of Arrangements, at least one month before the annual meeting at which the paper or report is to be read. It shall also be the duty of the President and Secretary of each Section to communicate the same information to the Chairman of the Committee of Arrangements concerning such papers and reports as may come into their possession or knowledge for their respective Sections the same length of time before the annual meeting. And the Committee of Arrangements shall determine the order of reading or presentation of all such papers, and announce the same in the form of a programme for the use of all members attending the annual meeting. Such programme shall also contain the rules specified in the By-Laws and ordinances concerning the consideration and disposal of all papers in the Sections.'"

All of which is respectfully submitted.

N. S. DAVIS.
BUFFALO, June 4th, 1878. S. D. GROSS.

Prof. Davis explained that the other members of the committee, except Dr. Bowditch, were not present at the meeting of the committee and could not be reached, but the ex-president had a minority report. The venerable Dr. Bowditch, of

Massachusetts, then came upon the stage and read the following:

MINORITY REPORT.

The undersigned still holds to the opinion that the submission to trained experts of all papers read or presented to the various Sections of the Association would tend to make our published transactions more interesting, and vastly to increase their scientific merits, although perchance making them less bulky.

He believes, moreover, that some other of the amendments suggested by him would ultimately be of service to the Association.

He admits the cogency of the arguments of the majority of the committee in regard to permanent membership.

He still adheres to the idea that the time spent in discussions in regard to the by-laws in any scientific body is commonly so much time wasted which should be spent in more congenial and appropriate work, and that no changes, even though deemed very important by a few, should be made in the organic law, if they do not meet with favor with a large majority of the body.

And, finally, in full confidence that with our present By-Laws, if the chairmen and secretaries of the Sections and of the Committee of Arrangements will do thoroughly their respective duty, the meetings of this association and its transactions will annually grow better as they have done in the past, the undersigned will not oppose the report of the majority of the committee.

HENRY I. BOWDITCH.

The majority report was adopted unanimously.

Dr. J. L. Cabell, Chairman of the Section on State Medicine and Public Hygiene, delivered a very able address. This was a summary of what had been recently done in his field Especial attention was given to answering the question, "Ho shall we prevent the spread of contagious diseases?"

The theory of the vivum contagium was most carefully elaborated. Believers in it can scarcely do better than to read this part of the address. The address being referred to the proper Section, the meeting adjourned till Friday morning.

Upon the opening of the final general session at the usual hour this morning, President Richardson announced the following Ozone Committee, appointed pursuant to the action taken yesterday: Dr. N. S. Davis, of Illinois, Chairman; Dr. I. S. Billings, of United States Army; Dr. W. N. Geddings, of South Carolina; Dr. J. M. Toner, of the District of Columbia, and Dr. S. M. Bemiss, of Louisiana.

Dr. J. S. Hibbard, of Indiana, offered the following resolution, which was adopted:

"*Resolved*, That hereafter it shall be the duty of the Committee on Necrology to confine their reports to the death of medical men who have been members of this Association, and at the time of death were still in good fellowship or honorably separated from the Association.

Dr. A. N. Bell, of Garden City, moved the continuance of the committees appointed two years ago for the organization of State Boards of Health. The same was on motion carried.

The following communication was received from the Medical Society of the State of Pennsylvania, and, after being read by the Secretary, was ordered entered on the minutes:

At the annual meeting of this body held in Pittsburgh, May, 1878, it was unanimously

"*Resolved*, That the Medical Society of the State of Pennsylvania, recognizing the advantages of the metric system from its universatility, simplicity and scientific character, does recommend the use of the same to the members of the society, and urges them to familiarize themselves with it, and to advise their students to use it exclusively when they commence their medical career.

"*Resolved*, That in all communications made to this society in which reference is made to weights and measures, the metric system only should be used.

"*Resolved*, That the Secretary of this Society is instructed to bring this action of this Society to the notice of the American Medical Association at its next meeting, and urge upon the National Association a similar action."

A resolution was offered by Dr. Seguin asking the confirmation of Drs. Sims, Drysdale and Seguin as Commissioners and Delegates for the question of medical uniformity in Europe, to report next year. Adopted.

Dr. Davis next offered the following resolution, which was adopted:

"*Resolved*, That the section on Practical Medicine, Materia Medica ond Physiology recommend the appointment by the American Medical Association of a committee of five members, to whom shall be referred so much of the recommendations in the address of the President of that Section as relates to the establishment of proper sanitaria for consumption, and the more accurate utilizing of the various mineral waters of our country with instructions to report at the next meeting of the Association.

Accordingly the President appointed the following members as such committee: Dr. H. I. Bowditch, of Massachusetts; Dr. A. N. Bell, of New York State; Dr. J. L. Cabell, of Virginia; Dr. S. E. Chaillé, of Louisiana, and Dr. Charles Dennison, of Colorado.

The President announced the following delegates:

To European Medical Societies—Drs. Sims, Drysdale, Seguin, Daly, Halberstadt, Levis and W. H. Pancoast.

To the Canadian Medical Association—Drs. Brodie, Todd, E. N. Brush and W. Clarke.

RESOLUTIONS DECLARING SOME OF THE LEGAL RELATIONS OF INSANE PATIENTS.

Presented by Foster Pratt, M. D., of Michigan, to the American Medical Association on the 6th of June. Referred by the Association to its Section of Medical Jurisprudence and Psychology; by it discussed, unanimously approved, and referred back to the Association with the recommendation that they be adopted; again presented, by the Secretary, to the Association, and by it unanimously adopted June 7, 1878:

"*Resolved*, That the personal restraint of the insane is an essential element of the medical treatment of their disease, the use of which, as a therapeutical agency, may be justified by their insanity, just as the use of it, as a police agency, for the prevention of injury to persons or property, is justified by their dangerous conduct.

"*Resolved*, That, while none question the necessity for specific statutory provisions for the proper restraint of insane persons who are wholly or partly as public charges, we maintain,

That, so far as it is the natural or moral duty of relatives and friends it is also their natural and inherent right, whether declared or undeclared by statute, to restrain and to care for their sick or insane relative as a private patient, at his or their expense, in his or their home, or in a legally recognized and regulated hospital; and,

That the exercise by them of so much restraint as is essential to the proper treatment of his disease, is not a violation of his right of personal liberty; and,

That their duty and right in this respect are subject to State surveillance or legal limitation only so far as may be necessary to prevent the neglect of the duty, or to punish the abuse of the right.

The following report of the committee to secure the appointment of State Boards of Health was presented and adopted:

"Your committee, consisting of the President and Permanent Secretary, who are required to report annually the results of their efforts for the organization of State Boards of Health, respectfully report that they have addressed to the Governor of each State where a Board of Health has not been organized a memorial urging the importantce of immediate action in this direction. A few Executives have courteously acknowledged this communication and expressed the earnest desire to further our efforts. We are happy to announce that three additional State Boards have been organized, making nineteen in all, viz.:

Alabama, California, Colorado, Connecticut, Georgia, Illinois, Kentucky, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, Tennessee, Rhode Island, Virginia, Wisconsin.

Dr. X. C. Scott called up the resolution of last year, creating a new Section of Ophthalmology, Otology and Laryngology, to be known as Section VI, and moved its adoption. Carried.

On motion of Dr. E. Smith, of Detroit, Dr. H. Knapp, of New York, was made Chairman of the new Section, and X. C. Scott, of Ohio, was made Secretary.

Dr. Walter Kempster, of Oshkosh, Wis., Chairman of the Section on Medical Jurisprudence, Chemistry and Psychology, read a valuable paper on "The Relations of Pathology to the so-called Motor Centers," which was received with marked attention and applause. It was referred to the Committee on Publication.

The Treasurer reported as follows:

"The Treasurer has the honor to report a balance in the treasury at the end of the fiscal year of $2,446.02. This amount is much larger than would have been found there had any deduction been made to pay the Permanent Secretary an honorarium for his services for the previous year. For the first time for a number of years the Association at its last meeting omitted to pass a resolution appropriating money to this end, and the Treasurer was thus left without authority to devote the funds of the Association to such a purpose. The annual amount, whatever it might be, voted by that body to its Secretary, was an honorarium, and not a salary, the Association having decided in 1873 upon the adverse reports of a committee appointed in 1872 to decide upon the propriety of making the office a salaried one, that "no amount of specified salary be attached to the office." Ever since that time an honorarium, not a salary, has been paid him by the Treasurer, but never without the authoritative order of the Association, as conveyed by annual resolution.

"The Treasurer is in constant receipt of applications from members for volumes of the transactions of the Association which are entirely out of print. As some of the members are in possession of scarce volumes, which they may not wish to retain, the Treasurer will willingly act as a medium of exchange, and thus accommodate those who are anxious to complete their sets." [Here followed a financial statement.]

The report was adopted and referred to the Publication Committee.

The annual report of the Publication Committee was received and adopted.

On motion of Dr. Davis the treasurer was instructed to pay the sum of $700 as an honorarium to the Permanent Secretary for his services.

The following report of the Committee on Prize Essays was read by the Local Secretary and adopted:

"Your committee to determine the merits of prize essays would respectfully report: That they have had three separate papers submitted to their inspection. Two of these papers present subjects of very great interest and show original researches, but are too imperfect in the estimation of the committee to command a prize. The remaining paper, in the judgment of your committee, is fully up to the requirements. Indeed the paper is so elaborate as to fill a large space in a volume of the transactions of the Association. The paper should be considered as *two* and not as *one*. The analysis of 789 cases of operation on the carotid artery, and the careful and minute measurements of the artery and its branches in one hundred and twenty-one subjects, showing the range of variation and the percentage of the same, followed by inferences, bold and original, naturally constitutes a paper, complete in itself. Another one on the same plan with reference to the innominate and subclavian, being an analysis of 300 cases, and the observation of 52 subjects, is presented to us in such a manner that we may consider the whole as one prize, or they may compete for both.

"Your committee believe that both prizes should be awarded to the two essays by one person. The motto is, "*Tempora mutantur it nos mutamur in illis.*"

E. M. MOORE, *Chairman.*
THOS. LOTHROP.
H. R. HOPKINS.
W. W. MINER.

"BUFFALO, N. Y., June 6, 1878."

The recommendation of the committee was unanimously adopted.

On opening the sealed envelope the name of the successful essayist was found to be Dr. John A. Wyeth, of New York City, and the announcement was received with applause.

The Local Secretary next read the annual report of the Librarian, which was referred to the Committee on Library.

On motion of Dr. Brodie, of Detroit, the Treasurer was authorized to draw a draft of .$200 for the expenses of the library.

On motion of Dr. Davis, of Chicago, the recommendation of the Librarian adding Dr. J. M. Toner, of Washington, to the Library Committee, was adopted.

Dr. J. M. Keller, of Arkansas, offered the following, which was laid over for one year:

"*Resolved*, That in future the Committee on Nominations shall present the name of no person for appointment or election to office or position, save on the Committees on Necrology and Climatology, unless the party nominated be in attendance on the Association at the time.

Dr. J. J. Caldwell, of Maryland, offered a resolution creating a new Section upon "Neurology and Electrology." Action was deferred for one year.

Dr. Maddox, of Baltimore, Md., offered another resolution creating a section on "Diseases of the Genito-Urinary Organs, including Dermatology and Syphilis." Laid over.

IN MEMORIAM.

The following preamble and resolutions in relation to the late Prof. Joseph Henry, of the Smithsonian Institute, were offered by Dr. Toner, and adopted:

"WHEREAS, A short time previous to the meeting of this Association, Professor Joseph Henry, late Secretary of the Smithsonian Institute, departed this life full of years and honors; therefore, be it

"*Resolved*, That the American Medical Association hereby offers its tribute of respect to the name of this illustrious man, whose pure and noble life, as well as his great attainments and actual discoveries, have long since placed him at the head of the men of science in this land.

"*Resolved*, That while we share the common grief of all his fellow-countrymen on the occasion of his death, we believe his name will be established in the memory of posterity, and we hold up his example for the emulation of all lovers of the truth, now and hereafter.

"*Resolved*, That a copy of these resolutions be transmitted to the Regents of the Smithsonian Institute and to the family of the deceased."

On motion of Dr. Davis a resolution relating to the following amendments proposed by him last year, was adopted:

"Strike out from By-Laws the whole of fifth paragraph, Sec. II. 'Papers appropriate to the several Sections, in order to secure consideration and action, must be sent to the secretary of the appropriate Section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent to examine them with care, and with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same; and, after their full examination and discussion by the section, they shall be sent to the Permanent Secretary of the Association.'

"Strike out all of third paragraph, Section VIII: 'It shall be the duty of every member of this Association, who learns that any existing medical school departs from the published conditions of graduation, to report the fact at the annual meetings; and, on proof of the fact, such school shall be deprived of its representation in this body.'

"Strike out all of second paragraph, Section IX: 'This Association recognizes as a 'regular organized' medical college one that has been represented at any meeting, and that complies with the rules and directions found in the published *Transactions*, vol. xiii, page 33.'"

Dr. Hitchcock, of Michigan, proposed an amendment in regard to the election of officers, which was laid over until the next meeting.

Dr. Parvin, the President elect, was then introduced by President Richardson with a few complimentary remarks, and the former returned his thanks for the honor conferred in eloquent and fitting terms.

The Association now adjourned *sine die.*

The entire number registered during the session was five hundred and fifty. We have not space to report in any detail the Section work. All Sections except that on Chemistry and Medical Jurisprudence were well attended; valuable papers were read and interesting discussions followed. It must, however, be said that none of these Sections rose far above an average medical society of similar size, and continuing in session for so long a time.

The social entertainments were elegant and abundant, and the general good fellowship among the delegates all that need be desired.

Respecting Michigan matters which came before the Association we may briefly state: (1) The Ann Arbor medical faculty came to the Association with five delegates from their local society. These being objected to, the case went before the Judicial Council. This body decided that they had a right to but two. Evidently they mistook the number of members in their society.

(2) In the matter of charges preferred by Dr. W. W. Jones against the Michigan State Medical Society for violating the

spirit of the Code of Ethics, in that it had sent as delegate to the American Medical Association Dr. E. S. Dunster, knowing that he was deliberately engaged in teaching and examining avowed adherents of an exclusive dogma. The Judicial Council in effect reported that, while the charges were correct, there was no law in the Code of Ethics that could be applied to the case without stretching the literal meaning. It did not regard it wise to decide any case upon the spirit of a law, and so this case was referred back to the Association.

After some animated discussion, the Association instructed the members of the Judicial Council acting as a committee to report an addition to the Ethical Code covering this particular violation of the spirit of the code. This law was reported, and lies over till next meeting ere it can be acted upon. All the details of this matter may be found in the foregoing report. We state it connectedly here for the benefit of those not at the meeting who desire to take in the situation at a glance. We may remark that the Association evidently comprehended that it had in this matter only two alternatives, viz.: the repudiation of all responsibility in educating avowed adherents of an exclusive dogma, or the recognition of and consultation with the same at the bedside. The question is a fundamental one, and the results of its decision far reaching for good or ill. The issue originated in Michigan, but it concerns the entire profession. Freed from outside complications, we trust that it may be met on its merits, and decided in the interests of rational medicine.*

American Medical College Association—Second Annual Meeting.

In pursuance of the call of the President, Prof. J. B. Biddle, the Association of American Medical Colleges convened at the Library Room of the Buffalo Medical College, June 3d, 10 A. M., 1878. The President occupied the chair.

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* For aid in preparing this report we are indebted to the Buffalo *Commercial Advertiser*. The efforts of this journal to give a faithful account of the entire meetings were eminently successful and deserving of all praise.

The colleges represented by delegates were the following:

Rush Medical College—Prof. Moses Gunn.

Jefferson Medical College—Prof. S. D. Gross, Prof. J. Biddle.

Medical Department University of Louisiana—Prof. J. Bodine.

Chicago Medical College—Prof. N. S. Davis.

Miami Medical College—Prof. W. H. Mussey.

Detroit Medical College—Prof. L. Connor, Prof. E. W Jenks.

Starling Medical College—Prof. H. G. Landis.

Medical Departments Universities of Nashville and Vanderbilt—Prof. T. Menees, Prof. W. T. Briggs.

Louisville Medical College—Prof. A. B. Cook.

Medical Department University of Iowa—Prof. E. F. Clapp, Prof. W. F. Peck, Prof. W. S. Robertson.

Kansas City College Physicians and Surgeons—Prof. T. B. Lester.

Medical Department University of Michigan—Prof. E. S. Dunster, Prof. George E. Frothingham.

Missouri Medical College—Prof. A. P. Lankford.

Bellevue Hospital Medical College—Prof. A. Flint, Jr.

Cleveland Medical College—Prof. H. K. Cushing, Prof. X. C. Scott.

Medical Department University of Wooster—Prof. W. J. Scott.

In accordance with the official call for the meeting, the Association first considered the objection made to the admission of the Medical Department of Howard University. The Secretary gave a verbal statement of the case, and read the official answer to the objections made by the officers of the applying college.

Upon the question of the admission of the Medical Department of Howard University into the Association, twelve colleges voted in the negative, and two in the affirmative, so Howard University was not admitted.

Annual reports were read by the Secretary from the following members:

Medical Department of the University of Louisville.
Jefferson Medical Jollege.
Rush Medical College.
Medical Department University of Iowa.
Medical Department Universities of Nashville and Vanderbilt.
Hospital College of Medicine, Louisville.
Kansas City College of Physicians and Surgeons.
Dartmouth Medical College.
Cleveland Medical College.
Missouri Medical College.
Texas Medical College and Hospital.
Bellevue Hospital Medical College.
Louisville Medical College.
Miami Medical College.
College of Physicians and Surgeons of New York.
Detroit Medical College.
Medical Department University of Wooster.
Medical Department University of Michigan.
Chicago Medical College.

Reports had not been received from:

Indiana Medical College.
Medical College of Fort Wayne.
Woman's Hospital Medical College, Chicago.
Medical Department University of Vermont.
Starling Medical College.
Medical Department University of Louisiana.

In its report the "Medical Department of the University of ooster" stated that it had conferred the honorary degree on a person only twenty-eight years old, while the law of Association regulating the conferring of this degree expli- y states that the degree must not be conferred on those er forty years.

n explanation the delegate stated that they had utterly for- ten this law. In view of this, the Association permitted the offending college to retain its standing. Prior to taki this action, the matter was discussed by Profs. A. Flint, S. D. Gross, N. S. Davis, X. C. Scott and others.

Prof. A. Flint, Jr., offered the following:

"*Resolved*, That the Secretary of the Association be, and i hereby, directed to furnish once in each year to each and every college member and to each affiliated college a printed list of college members and affiliated colleges the diplomas and tickets of which are to be recognized by the college members and affiliated colleges; and also to furnish to college members and affiliated colleges a printed list of those colleges (not including irregular colleges) of the United States that are not affiliated, and that are not eligible for membership of the Association, the diplomas and tickets of which are not to be recognized by college members and affiliated colleges; and also to furnish with said list of colleges not to be recognized the dates at which said colleges had become ineligible for membership of the Association, and after which the diplomas and tickets of said colleges are not to be recognized."

After being discussed by Profs. Richardson, Davis, Flint, Peck, Cook, Frothingham and Bodine, this resolution was referred to a committee consisting of Profs. N. S. Davis, W. F. Peck, and E. S. Dunster, with instructions to examine into the matter and report at the afternoon session as to the action that would best advance the interests of the Association.

Bellevue Hospital Medical College offered the following amendments to the Articles of Confederation and By-Laws of the Association. They were accompanied by the official indorsement of the College of Physicians and Surgeons of New York.

Amendment to Section 5, Article V, of the Articles of Confederation of the American Medical College Association:

Instead of "five per cent of the number of matriculants," read "ten per cent of the number of graduates."

The above amendment is proposed for the reason that in certain colleges the matriculation fee is paid but once, and old matriculants may receive a matriculation ticket without paying another fee. Also the number of graduates always represents the actual class more accurately than the number of matriculants.

Additional Section to Article VII of the By-Laws: Every college member and every affiliated college shall print each year a true list of matriculants of the college for the year, and their preceptors, or the names of the colleges at which the matriculants have graduated, in the cases of those matriculants who are graduates in medicine, and every such college shall also print a true list of the graduates for the year.

The object of this additional section is to provide that every college member of the Association shall have proper public means of information with regard to the matriculants and their preceptors, and the graduates of each college.

Under the rules of the Association these amendments lie over until next year, before action can be taken.

The Association now adjourned till 3 P. M.

Pursuant to adjournment, the Association was called to order by the President at 3 P. M.

The Secretary read the following communication from the Medical Society of the State of Pennsylvania:

"MEDICAL SOCIETY OF THE STATE OF
PENNSYLVANIA, June, 1878.

"*To the American Medical College Association:*

"GENTLEMEN—At the session of this body held in Pittsburgh, May, 1878, the following resolutions were adopted, and directed to be forwarded to you:

"'*Resolved*, That all county medical societies now existing under the regulations of this society, or which may hereafter be so organized, shall, at the next meeting to elect officers following the adoption of this resolution, or at the meeting of officers, when such society shall have been organized, and annually thereafter be required to elect three members, to be called Medical Examiners, whose duty it shall be to examine all applicants for admission as students of medicine under the tuition of members of the society; and said committee shall withhold their certificate from any applicant, unless he is good moral character, possesses a good English education, an a sufficient knowledge of Greek and Latin to enable him t pursue his studies to advantage ; and no member of any county society shall receive any person as a student of medicine unless he presents a favorable certificate from this committee.

"*Resolved*, That every member of a county society organized, or which may hereafter be organized under the regulations of the Medical Society of the State of Pennsylvania, before receiving any person as a student of medicine, shall require him to enter into a contract to pursue his studies for a period of not less than three years ; and it shall be the duty of his preceptor to present him a certificate, countersigned by the Secretary of the local society, of which he is a member, setting forth the facts as above stated.

"*Resolved*, That it shall be the duty of all members of the profession holding allegiance to the Medical Society of the State of Pennsylvania, to recommend their students to attend only such medical colleges as rigidly enforce the full three years' course of study in their curriculum, and otherwise conduce to elevate the standard of graduation.

"All of which is respectfully submitted.

"WM. B. ATKINSON,
"*Perm. Secretary.*"

After some desultory discussion, this communication was laid on the table.

Prof. A. Flint, Jr., offered the following :

"WHEREAS, The Nashville Medical College is giving two graduating courses in one year, and accepting three years' practice in lieu of a course of lectures ;

"*Resolved*, That the tickets and diplomas of said institution shall not be recognized by this body so long as the said practices are continued."

The preamble and resolution were seconded by Prof. W. F. Peck, and adopted.

Prof. N. S. Davis, to whom were referred Prof. A. Flint's resolutions respecting the graduation of American Medical Colleges, according to the standards of the Association, reported back the resolutions in the following form:

"*Resolved*, That the Secretary of the Association be, and is hereby directed to furnish once in each year to each and every college member, and to each affiliated college, a printed list of college members and affiliated colleges, the diplomas and tickets of which may be recognized by the college members and affiliated colleges; and also to furnish to college members and affiliated colleges a printed list of those colleges (not including irregular colleges) of the United States, that have applied for membership, and have been rejected or expelled from the Association, the diplomas and tickets of which are not to be recognized by college members and affiliated colleges; and also to furnish with said list of rejected colleges not to be recognized the dates at which said colleges had been excluded from membership of the Association, and after which the diplomas and tickets of said colleges, are not to be recognized."

This report was accepted and adopted. The evident feeling of the Association was that as soon as possible, in justice to all, a more perfect register of American medical colleges must be made.

Prof. S. D. Gross, a delegate from Jefferson Medical College, of Philadelphia, offered the following preamble and resolutions:

"WHEREAS, It is eminently desirable that the medical schools of this country should adopt a uniform system of instruction of a grade fully in accord with the requirements of the age in other branches of study, and with the practice of the medical institutions of Europe; and,

"WHEREAS, All the efforts to bring about such a change on the part of the American Medical Association, of the Association of Medical Teachers assembled at Cincinnati in 1867, and at Washington in 1869, and of different State medical societies, have signally failed; and,

"WHEREAS, The present time seems to be peculiarly favorable for taking strong ground upon the subject, inasmuch as it is now attracting general attention throughout the United States; therefore,

"*Resolved*, That this association respectfully and earnestly request that the regularly organized and accredited medical schools of the United States hold at their earliest convenience a meeting for the purpose of adopting some definite and final action upon a subject of such vital importance to the dignity, character and usefulness of the profession and the welfare of the American people.

"*Resolved*, That in order to impart proper efficiency to this plan each and every college be requested to send two delegates, consisting of one member of each Board of Trustees, and of one member of each Faculty, with full power to act for their respective institutions.

"*Resolved*, That the medical and secular press throughout the United States be respectfully requested to lend their aid in the dissemination and discussion of these preambles and resolutions in order to place the whole matter of medical education prominently before the profession and the people.

"*Resolved*, That a copy of these preambles and resolutions, signed by the President and Secretary of this Association, be transmitted to the officers of every regularly constituted medical college in the United States, with a request to hold the contemplated meeting at Washington City, or at some other central point on the first Wednesday in September next, or as soon thereafter as possible."

Prof. N. S. Davis seconded these preambles and resolutions, and heartily indorsed them.

Prof. T. G. Richardson moved that the time of the proposed meeting be fixed at the Friday preceding the meeting of the American Medical Association, and that the place be designated by the President of this Association. This motion was adopted, and following it the preamble and resolutions offered by Prof. Gross.

Prof. Menees offered the following Amendment to the Constitution:

"On page 14, of proceedings of the Association, in Article VI, in line 8, insert after the word rank, 'unless otherwise ordered by the Faculty.'"

Under the rules this was laid over till next meeting.

The balloting for officers for the ensuing year resulted as follows:

For President—Prof. J. B. Biddle.

For Vice-President—Prof. N. S. Davis.

For Secretary and Treasurer—Prof. Leartus Connor.

The Treasurer offered the following report, which was accepted:

	Received.	*Paid.*
Annual assessments of 22 colleges	$110 00	
Prof. E. Curtis, for printing, etc		$35 35
Stationery		4 25
700 copies Constitution, By-Laws, etc		50 00
Blank books		3 65
Printing circulars		4 00
Postage and wrappers		17 10
Totals	$110 00	$114 35
Deficit		$4 35

Colleges which have not yet paid their assessment are:

Woman's Medical College of Chicago.

Medical Department University of Vermont.

Hospital College of Medicine, Louisville.

To meet expenses for the ensuing year an assessment of $15 for each college was ordered for the ensuing year.

Dartmouth Medical College offered its resignation as a member of the Association. Laid on the table for one year.

Professors A. Flint, Jr., S. D. Gross and N. S. Davis were appointed a committee to report to the next meeting of the Association a plan for the resignation of medical colleges in good standing.

The Medical College of Fort Wayne, Indiana, having ceased to act under its former charter, and having received a new charter with change of name, it was

Resolved, That under this new charter the college must make application in the regular way for admission into the As[illegible]ociation.

The "College of Physicians and Surgeons," of Indianapol[illegible]s, Ind., the "Medical Department University of Missouri," a[illegible]d the Atlanta Medical College, signified their intention of appl[illegible]ying for membership in the Association.

On motion of Prof. S. D. Gross the thanks of the Associati[illegible]n were tendered to the officers of the past year for the efficie[illegible]nt manner in which they had performed their services.

On motion of the Secretary the Association tendered i[illegible]ts hearty thanks to the Faculty of Buffalo Medical College f[illegible]or their courtesy in furnishing commodious rooms for the meet[illegible]ings of the Association.

There being no further business the Association adjourne[illegible] *sine die.*

J. B. BIDDLE, M. D.,
President.

LEARTUS CONNOR, M. D.,
Secretary.

National Laryngological Association.

This association was organized at Buffalo, N. Y., June 3, 1878. A constitution and by-laws were adopted, and the following officers elected:

President—Dr. Louis Elsberg.

Vice-President—Dr. F. H. Davis.

Secretary and Treasurer—Dr. George M. Lefferts.

Council—Drs. Clinton Wagner, William C. Glasgow, E. L. Shurly, and J. H. Hartman.

The first annual meeting will be held in New York the second Tuesday in June, 1879.

Association of American Medical Editors.

The tenth annual convention of this association was held on the evening of June 3d at Buffalo, N. Y., the President, Dr. Jno. P. Gray, of the *American Journal of Insanity*, in the hair. Other journals represented were: *Michigan Medical News*, *American Practitioner*, *Louisville Medical News*, DETROIT LANCET, *St. Louis Medical and Surgical Journal*, *Buffalo Medical and Surgical Journal*, and *New Preparations*. Dr. F. H. Davis, the Permanent Secretary, was at his ost. Dr. Gray, in his annual address, compared the laws of ngland and New York as they related to the committing, etaining and discharging the insane from confinement. The aper was characteristic of its accomplished author. In view f its vast importance to the people a vote was passed to quest the popular press to publish the entire article. The apers did so publish it. The paper was briefly discussed by rs. N. F. Davis and Foster Pratt. Representives of the *ichigan Medical News*, and of the *Buffalo Medical and rgical Journal*, were appointed as a Nominating Committee. hey reported for President an editor of the *Michigan Medi- News*, and for Vice-President an editor of the *Buffalo edical and Surgical Journal*. Drs. Wm. Brodie and E. Miner will make excellent officers we doubt not, and gely increase the reputation of this association. This is of ore importance than the fact that their respective associates a Nominating Committee procured their election.

Washtenaw County Medical Society.

The forty-seventh regular meeting of the Washtenaw County Medical Society was held Friday, March 27, 1878, at the city of Ann Arbor.

The society was called to order by the president, Dr. W. B. Smith, fourteen members present. The secretary not being present, the reading of the minutes of the preceding meeting was dispensed with, and, on motion, P. B. Rose was appointed secretary *pro tem.*

The following communication was received from the secretary, Dr. Dunster:

ANN ARBOR, Feb. 12, 1878.

W. B. Smith, M. D., President Washtenaw County Medical Society:

DEAR SIR—I have the honor to resign my position as a member of the Washtenaw County Medical Society.

Very respectfully, your obedient servant,

E. S. DUNSTER, M. D.

On motion the resignation of Dr. Dunster was accepted.

Drs. Batwell and Kinne were added to the committee on necrology.

Dr. Hall, chairman of a committee appointed a year or more ago to look after and report the condition of a patient, who came before the society at a previous meeting, affected with what was then supposed to be hereditary syphilis, reported having since treated the patient for apparantly syphilitic sore throat, with mercurials with good effect; and that he had since treated the son for the same disease, thus tracing it in a direct line to the third generation.

On motion, the chair appointed a committe of three to nominate delegates to represent this society in the American Medical Association. The chair appointed Drs. Breakey, Hall and Babbitt such committee, who, after consultation, reported the names of Dr. W. B. Smith, of Ann Arbor; Dr. D. A. Post, of Ypsilanti; Dr. A. C. Taylor, of Manchester, and Dr. H. B. Bessac, of Milan, with the recommendation that the president and secretary be authorized to fill all vacancies.

The report was accepted and adopted.

REPORTS OF FACTS AND CASES.

Under this head Dr. Kinne reported a very instructive case of "Epilepsy," seemingly from complicating heredities, and successfully treated upon that hypothesis (published in full elsewhere in this issue of the LANCET).

After the reading of the report a general discussion of the case was indulged in by different members of the society.

Dr. Breakey reported a case of aphasia (published in full in this number of LANCET).

Dr. Batwell reported a case of "Cerebro-Spinal Meningitis," which was ushered in by the usual routine of symptoms characterizing an attack of typhoid enteric fever, as follows:

CEREBRO-SPINAL MENINGITIS.

Tuesday, December 4th, was called to see a young lady, aged 19, suffering from the usual routine of symptoms which usher in an attack of typho-enteric fever—skin hot and dry (temperature 103°), pulse 120, tenderness over bowels, diarrhea, tongue heavily coated, with red tip and center. Had not felt well for some days previous to this condition. Her headache was referred to the frontal region, and was not very severe. I prescribed an alterative, to be followed by a slight saline cathartic and a mixture with veratria and gelsemium. Next day no material diminution of the symptoms, except less headache and diarrhea. Saw her in the evening and found the same condition, but the tongue very dry and red—mind perfectly clear. Thursday, on visiting her, found a total change in all her symptoms; entire absence of fever, with a moist, natural tongue; no tenderness of bowels, or diarrhea; no headache, pulse 80, temperature normal; inclined to eat. I had prepared the family for a long siege of attendance, and here I was with "the bottom dropped out" of my long contemplated typho-malarial fever. She continued in this condition till towards midnight (twenty-four hours) when extreme restlessness supervened, accompanied by severe headache referred to the base of the brain; pupil largely dilated, and a decided tendency to opisthotonos; all these symptoms continued to increase in severity; violent spasms set in, and she died on Wednesday, or the ninth day after her first attack of fever. The total subsidence of all the apparent typhoid symptoms constitute the chief feature of interest in this case, as all the other symptoms subsequent to this are such as are seen generally in cases of cerebro-spinal meningitis.

The hour for dinner having arrived, the society was hospitably entertained at a bountiful dinner given by the President at his residence.

After dinner the society was again called to order under a continuance of the order reports of cases.

Dr. Kopp reported a case of much interest, with complications involving especially the lungs and kidneys, with increased secretion of urine, ranging in amount from 128 to 192 ounces in the twenty-four hours, with *no* sugar, or other marked abnormality of the urine, except its increased quantity of water. The Doctor was requested to report further upon the case at the next meeting of the society.

The committee on necrology made the following report, which was adopted:

WHEREAS, Death has removed from among us Dr. Abram Sager, one of the founders, and most earnest and devoted supporters of this society; an honored citizen whose distinguished services were rendered to the State in various public capacities for a period of forty years; a member of the medical faculty of the University, and continuing in its service for a quarter of a century; and,

WHEREAS, By his death this society, in common with the profession at large, suffers the loss of an eminent member and co-worker, celebrated for his scientific and professional attainments, as well as his varied acquirements in all departments of learning and for his ripe judgment and skill in the application of medical science; an unpretentious scholar, who studied while he worked; a faithful practitioner, trusted by the suffering, honored by his professional brethren, who sought his counsel, esteemed his courtesy and kindness, admired his conscientious and courageous adherence to duty in all professional relations; a physician who devoted his energies with rare self-sacrifice to the advancement of a profession, made more noble and honorable by his life; therefore,

Resolved, That with the friends of medicine and science, we mourn our common loss, and unite in tendering our heartfelt sympathies to the family of Dr. Sager.

Resolved, That the secretary be instructed to send to the family a copy of these resolutions, and that a copy be furnished the city papers.

W. F. BREAKEY,
A. F. KINNEY,
ED. BATWELL,
Committee on Necrology.

The Board of Censors reported favorably on the application of Dr. Jno. Morton for membership, made at the last meeting, and, on motion, he was declared duly elected.

The following resolution, offered by Dr. Batwell, was unanimously adopted:

Resolved, That that the thanks of this society be, and are hereby tendered Dr. Smith, president of the society, for the sumptuous entertainment furnished its members at his residence; and,

Resolved, That the proceedings of this society be offered the DETROIT LANCET for publication.

Carried. After which the society adjourned, to meet at Ypsilanti in June.

P. B. ROSE,
Secretary *pro tem.*

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

NEURALGIA.—(*L'Union Medicale*, April 18, 1878.)—Marino recommends the following solution as a hypodermic injection in neuralgia: ℞. Ergotine gr. ijss, to gr. iv, distilled water or glycerine q. s., made into a solution for one injection. It causes a more or less intense burning sensation, which disappears in about half an hour, if the part is covered with cold, wet compresses. It does not usually give rise to abscesses or erysipelas, etc. According to the author, a single or at most two injections suffice for a cure, although it is better, in order to prevent a relapse, to give from four to six injections more, according to the intensity of the pain or its long continuance. Some very favorable results have also been obtained with these injections patients affected with tic douloureux, while in sciatic cases they are generally of no avail. A dose of three grains of ergotine is usually sufficient.

TREATMENT OF FACIAL PARALYSIS.—(*St. Louis Clinical Record*, May, 1878.)—Dr. W. A. Hammond, in a paper upon this subject, says that, according to his experience, facial paralysis rarely spontaneously disappears entirely, though partial recoveries without treatment are not unfrequently met with. But partial recovery is not much better than a permanent non-improvement. But it must be confessed that even after various kinds of medical treatment recovery is not always complete, and no doubt this is often due to the late period at which the patient seeks professional advice, for in no disease are prompt measures more necessary than in facial paralysis. He advises the use of strychnia, electricity, passive exercise and support to the affected side of the face, given by a little hook placed in the angle of the mouth and fastened to the ear by an elastic band. The improvement in treatment to which he calls attention, consists in the administration of strychnia in increasing doses to the point of rapidly—as rapidly, in fact, as is consistent with prudence—bringing the patient under its full physiological influence. He makes use of a solution of the sulphate of strychnia in the proportion of one grain to the ounce of water. Every ten minims of such a solution contains one-forty-eighth of a grain of the medicine. He begins with ten minims of this solution three times a day for the first day; the second day eleven minims are given three times; the next twelve, and so on, till the patient experiences a sensation of cramp or rigidity in the legs, or in the muscles of the back of the neck or of the jaw. It is usually first felt in the calves of the legs. The further administration is now stopped, and if necessary, on the following day, the solution is given as before, in doses of ten minims, and the doses are again run up to the extent of producing the muscular cramp.

MORTALITY OF ABSTAINING AND MODERATE DRINKING LIVES. —(*The Doctor*, February 1, 1878.)—At the Association of Medical Officers of Health a paper has been read by Dr.

Edmunds, entitled: "Observations on One Thousand Consecutive Deaths, occurring within Seven Years after Insurance, in the experience of the Temperance and General Provident Institution, with notes on the Comparative Mortality among Abstainers and Non-Abstainers."

Reviewing a large mass of figures, Dr. Edmunds showed that among the 1,000 deaths which he had tabulated, the mortality of the abstainers in comparison to the carefully sifted moderate drinkers was as follows among equal numbers of insurants:

In the gross mortality three abstainers died where four moderate drinkers died. Of diseases of the nervous system, 70 abstainers died for every 108 moderate drinkers.

Of lung disease, 282 abstainers died for every 261 moderate drinkers.

Of heart disease, 51 abstainers died for every 47 moderate drinkers.

Of liver disease, kidney disease, and "dropsy," taken together as practically the diseases of the excretory organs, 42 abstainers died where 78 moderate drinkers died.

Of zymotic diseases 82 abstainers died where 54 moderate drinkers died.

Of casualties, 46 abstainers died where 39 moderate drinkers died.

The abstainers died of lung disease, of heart disease, of zymotics and of casualties in larger ratio than the moderate drinkers, while from nervous disorders and diseases of the excretory organs their mortality had been small. He accounts for this by supposing that persons with larger nervous energy would tax their physical frame more severely, and would run risks to life which men of less nerve would avoid. Thus, the larger proportion of total abstainers died from diseases of the respiratory and circulatory apparatus, in consequence of overwork and from accidental injury, in consequence of extreme courage, or perhaps recklessness. Some interest has been excited by the figures, but we need larger numbers from which to draw conclusions.

TREATMENT OF DIPHTHERIA. — (*Hospital Gazette*, May 2, 1878.)—A very malignant epidemic of diphtheria has prevailed during the past season in a part of Rhode Island, of which Little Comfort is the center. It attacked all ages, and was very fatal, notwithstanding the use of all the orthodox remedies. Dr. White, of the latter place, at length prescribed the following remedy, and obtained speedy and successful results:

℞. Pulv. cinchona	2 parts
Pulv. capsici	2 parts
Pulv. ipecac	1 part

M. Sig. 5 to 10 grs. every two hours.

A tincture may be made from the above powder, which, given in doses of from five drops to a teaspoonful every two hours, will produce the same results.

SPONTANEOUS EXPULSION OF A FOREIGN BODY FROM THE AIR PASSAGES.—G. W. Boerstler, M. D. (*Ohio Medical Recorder*, April, 1878), reports a case where a piece of lead, one inch in length, one-fourth of an inch in diameter, and weighing three drachms, was expelled by coughing, from the right bronchus of a child, aged nine years, where it had accidentally slipped from the mouth. The foreign body had remained in the lung three weeks. The child quickly recovered.

The Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

"Body Snatching."

The late trouble at the Medical Department of our State University over the body of Mr. Devins, found in the dissecting room of that institution by his brother, who by chance discovered that it had been removed from its grave at North Bend, and a similar difficulty in the Ohio Medical College, over the body of Hon. J. Scott Harrison, which was also accidentally discovered in the dissecting room of that institution, and h had also apparently been obtained by the process of ly snatching," might well lead to the inquiry as to whether legal sources of supply of material for the purposes of dissecting rooms of our medical colleges are equal to fill lemand? whether, therefore, a shadow of an apology can und for the college authorities obtaining material in the hensible manner these bodies seem to have been obtained? ining our inquiries to this State, it would appear that by t of the Legislature of 1875, which was an act to amend act to authorize Dissection in Certain Cases for the ncement of Science," and which we believe is the latest lation on the subject, it is provided, in (2110) section 1: t any member of either of the following boards of officers, t: the Board of Health of any city, village or township e State, the Mayor or Common Council of any city, and fficer or board having direction, management, charge or ol, in whole or in part, of any prison, house of correction, il in the State, shall deliver the dead bodies of such peras may be required to be buried at the public expense, so-requested, by letter or otherwise, to any member of Medical Faculty of the University of Michigan, or Detroit cal College. * * *

* * In no case shall the faculty or the regents be led to require or receive from any medical student or stus for any such body furnished therein, any sum of money cess of the actual cost of procuring the same. Any of officers who shall neglect to comply with any such request being tendered or receiving the money so required to be sited, shall be subject to a penalty of one hundred dollars ach body that he neglects to ship, as aforesaid, one-half of h shall go to the party making the demand and deposit, as said. *Provided*, That the University, and each and every cal institution shall not receive into their possession such s as are procured in this State other than those provided y the provisions of this act, and every individual or party ting this provision shall be deemed guilty of a misdeor."

From this practical transcript of the law, the duties of the officers in control of those institutions, having at their disposal dead bodies which could be claimed by medical colleges for their uses, would seem plain enough, and the penalty for non-compliance might insure respect enough for the law. But from competent authority, we are assured that scarcely any of the material with which the dissecting tables of our two colleges are supplied, come from these institutions directly, or upon requisition of the officers of the medical schools.

The officers of these institutions refuse on various pleas, and in some cases, have been known to couple the refusal with insolence; in one case to "prevent desecration," going so far as to put a guard over the graves of the dead whose bodies had been requested by the officers of a medical college. This evasion of the law is made easy, and indeed the whole act, so far as making provision for the supply of our medical schools, with dissecting material is concerned, is neutralized by section 2 of the act, which we here transcribe:

"No such dead body shall be shipped, as aforesaid, if within twenty-four hours after death, or before such body shall be shipped, any relative or friend of the deceased, who will bury the body at his own expense, or shall require to have the body buried; or, if such deceased person was a stranger, or traveler, the dead body shall in all such cases, be buried."

It will be noticed that this section renders null the preceding sections of the law, as far as compelling the officers of these institutions are concerned, to honor the requisitions made upon them for the dead, as, if unwilling to comply, it is only necessary for them to procure some one to request that the body of the deceased shall be buried, when the same will be done at the expense of the public.

It is easy to realize the result of this condition of things. The medical schools are compelled to employ agents to keep their dissecting tables supplied. These agents procure bodies too often by illegal methods, of which the college authorities have no cognizance. It naturally follows that the public every

›w and then are shocked by such revelations as those of the evins and Harrison cases.

The remedy is in another amendment to the law, which will ›mpel, without possibility of evasion, officers having in charge ıe sources of supply for such material, to honor the requiitions of the medical schools. H. A. C.

Memoranda.

Dr. J. R. Mayer, the famous propounder of the mechanical theory of heat, is dead.

We have received the second number of *The Iowa Catlin*, a monthly medical journal, published at Osceola, Iowa. It contains fifty-five pages, and is edited by Dr. E. Lawrence; price $3 per year.

During 1875, in India, 17,070 persons died from the bites of snakes, 1,016 persons were killed by wolves and 828 persons by tigers—in all 20,805 persons destroyed by wild animals in one year.—*Medical Times and Gazette.*

A new and improved test for the so-called amyloid degeneration has been devised by M. Wehenkel. It is aniline violet. When treated with this color the suspected tissue rapidly assumes the color of mahogany red.

A small-pox epidemic has for two years continued unabated in London, England. The total number of deaths during one year and ten months was four hundred and eighteen. At last reports nearly a thousand cases of small-pox were in the London hospitals.

Theodore Schwann, the founder of modern histology, and the author of the modern cell theory will in a few weeks celebrate the fortieth year of his professorship of physiology in the Belgian University at Liege.

Cabbold, by dissections of the mosquito, has shown that it sucks filiariæ from the blood of human beings and deposits them in wells, cisterns, etc. These entozoa are taken into the bodies of those who drink this water.

Nashville, Tenn., has added another to her list of medical colleges. It is called the "Meharry Medical College," and is devoted exclusively to the education of colored men. Next in order is a medical college for colored women.

We see by a Providence paper that Dr. J. F. Noyes was the guest of the Rhode Island State Medical Society at its late meeting.

The Michigan State Eclectic Association, at its session, June 19, presented evidence to show that the homeopathic part of Michigan University had recognized eclectic diplomas, but the Department of Medicine and Surgery in the same University would not recognize them. The following resolution was adopted:

"*Resolved*, That a special committee of three be appointed by the chair on legislation, whose duty it shall be to procure, by every just endeavor, either the abrogation of this arbitrary rule or the withdrawal of all support from the Department of Medicine and Surgery in the University, and also to secure an appropriation for the establishment of at least one eclectic chair of medicine in the University."

Edward Wigglesworth, M. D., gives the following account of the metric system in a nut-shell:

"WASHINGTON, May 3.—Surgeon-General Woodworth, of the United States Marine Hospital Service, has issued a circular, with the approval of Secretary Sherman, requiring medical officers of the Marine Hospital Service to make use hereafter for all official medical and pharmaceutical purposes, of the metric system of weights and measures, which had already, under the act of July 28, 1866, been adopted by this service for the purveying of medical supplies."—*Boston Daily Advertiser, May 4, 1878.*

The metric system is already *legalized* in both America and England. The only question now is, which of the two, the most progressive or the most conservative nation on earth, shall be the first to definitely and finally adopt it as an *exclusive* system? [N. B.—England was 400 years behind the continent in adopting our present arithmetic.] Russia has already taken preliminary steps towards its final adoption. The rest of the civilized world long since made the system obligatory, in whole or in part, except that, in Sweden alone, its obligatory use is to date from a period in the future, 1889.

Now, what is this metric system? Metric is from the Greek word "*metron*," a measure, spelled with Epsilon, e short, and therefore pronounced mêt-ric.

The meter (measure) is, practically, a fixed quantity, namely, the ten-millionth part of the earth's quadrant from the equator to the north pole. With the meter everything can be *measured*, for it is itself the unit of length; a cube, the edge of which is the tenth of a meter, is the unit of capacity (liter), and the weight of a cube of rain water, at its extreme contraction, the edge of which cube is a hundredth of a meter, is the unit of weight (gram).

It is the gram alone which concerns physicians, for, in the metric system, *everything is best prescribed and dispensed by weight alone;* numbers upon a prescription paper being regarded by the pharmacist as representing grams, unless the contrary is expressly stated. The fractions are always decimal.

The table is easily learned. It consists of six words, as prefixes, whether we deal with grams, liters or meters. These are: *Deci* for tenth, *centi* for hundredth, *milli* for thousandth; *deka* for ten, *hekto* for hundred, *kilo* for thousand. Having these few words, the terms of troy, avoirdupois, and apothecaries' weight, and of liquid measure, may be relegated to the limbo of pounds sterling, shillings, four-pence ha'pennies and farthings. As we say dime, cent, mill, so we say decigram, centigram, milligram. These prefixes are Latin, and *diminish* the value. *Deka*, *hekto* and *kilo* are Greek, and *increase* the value. The mnemonic is G I L D, *i. e.*, Greek increases, Latin decreases. *Deka* occurs in the English word decade; *hekto* in hecatomb; *kilo* in chiliad.

"Being accustomed to the words mill, cent and dime, we shall find the words 'milligram,' 'centigram' and 'decigram' quite as simple and easy to pronounce as our words, 'penny-weight-troy,' 'hundred-weight-avoirdupois,' 'scruple-apothecaries,' etc., notwithstanding the assertion to the contrary—those who grieve to give up the 'short and sharp Anglo-Saxon words used in our present *familiar* old tables of weights and measures.'"

Practically, moreover, for physicians, the whole system is reduced to grams and centigrams, just as, in money, to dollars and cents. On the right side of the prescription paper draw a perpendicular line from top to bottom. This decimal *line* takes the place of all the decimal *points*, and obviates the possibility of mistakes. This is the way dollars and cents are separated on business papers. Additional security is gained by writing the decimal fraction (centigrams) of half-size and raised above the line (of grams), since it represents a numerator of which the denominator, 100 is omitted. To make assurance doubly sure, "grams" may be written over the integer column of figures, and, if wished, the word "decimals" over the decimal column.

Now, what is a gram, or rather, the values, metrically expressed, of our present awkward weights?

		Prussian.	*Practical.*	*Precise.*
Grain I	=	0.06	0.06	0.065
℈ I	=	1.25	1.25	1.29
ʒ I	=	3.75	4.0	3.89
℥ I	=	30.0	32.0	31.1

The "practical" table alone concerns us. The "Prussian" (by order of the Prussian Ministry, August 29, 1867) is given merely to show that our table is even nearer the actual truth than one which has been proved by actual experience to answer every purpose. The values of the grain and scruple are a little too small. As they are used for powerful drugs this is an error in the right direction. The values of the drachm and ounce are a trifle too large, but the proportions and therefore the ratio of drug to vehicle are preserved.

A prescription written metrically is always proportionate, and whether the pharmacist uses pennyweights, pounds or tons; gills, pecks or chaldrons; pints, gallons or hogsheads; the ratios are preserved, and a teaspoon dose contains the same amount of medicine.

As regards administration, a teaspoon represents five grams, a tablespoon twenty grams; for a teaspoon holds one and one-third fluid drachms, a tablespoon a trifle more than four times as much.

In the metric system *everything is weighed*, thus obviating the difficulties of evaporation, refraction and adhesion, and obtaining more conveniently, more exact results. In our old "systemless system" some fluids were measured. How shall we obtain with weights, the desired bulks of fluids with varying weights? Must we learn the specific gravities of all fluids?

Not at all!

1. Fixed oils, honey, liquid acids and chloroform, must at present be prescribed in our old weights, not measures, according to the pharmacopœia. Here change old weights to metric ones.

2. Not enough chloroform or ether is included in any one prescription to admit of harm arising from the amount contained in a single dose, even were their weights regarded as the same with that of water. Moreover, it is not difficult to remember that ether weighs seven-tenths as much as water, chloroform twice as much as ether.

3. There remain infusions and tinctures, glycerines and syrups. These four are used in bulk as doses, or as solvents or vehicles. The former two may be regarded as identical in weight with water; the latter two as one-third heavier, and when prescribing these we need merely write, by weight, for four-thirds as much as we should write for were we prescribing water, and we obtain an equal bulk. The teaspoon or tablespoon dose will then contain the desired amount of the drugs employed.

Or, simplest of all, we can make any mixture up to any desired bulk by merely directing the druggist to use enough of the vehicle to bring the whole mixture up to the requisite weight for that bulk.

The Metric Bureau, 32 Hawley street, Boston, will furnish metric prescription blanks to order, to druggists or physicians at four-fifths printer's rates, or any blank can be made sufficiently metric by a perpendicular line at the right, headed *grams.*

THE METRIC SYSTEM IN MEDICINE.

Old Style.			*Metric Grams.*
m i or gr. i	equals		06
f ʒi " ʒi	"	4	
f ℥i " ℥i	"	32	

The decimal *line* instead of *points* makes errors impossible.
C. C. used for Gms. causes an error of 5 per cent (excess).
A teaspoon is 5 Gms.; a tablespoon, 20 Gms.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

INSANITY IN ANCIENT AND MODERN LIFE, WITH CHAPTER ON ITS PREVENTION. By Daniel Hack Tuke, M. D. Cloth; pages 226. London: MacMillan & Co. 1878.

One prominent feature of modern thought is the persistence with which it dwells upon all subjects connected with insanity. The work before us discusses the topic on the side of State medicine, certainly one of its most practical phases. The causes of insanity are classified as intoxication, defective nourishment, intermarriage, moral causes, and intellectual strain. During the prehistoric times these causes operated only to a moderate extent.

Among the Egyptians, drunkenness and grinding labor among the poor induced a considerable amount of insanity. A review of Greek life shows that the various causes of insanity must have exerted considerable influence. Intemperance in general, bacchanalian orgies and vicious habits must have induced attacks of lunacy. Causes of a moral nature associated with excessive refinement, susceptibility, self-dissection, morbid religious feelings doubtless produced insanity, but less frequently than the same causes operating at the present day. From the psychological history of the ancients he concludes that mental disease was not likely to be largely developed among the primitive races; that the causes of mental disorder must have exerted a very considerable influence upon the four important nations referred to, less in their earlier, much greater in their later and highly organized condition. These causes were less influential among the Egyptians and Jews than the Greeks, and less among the Greeks than among the Romans.

Speaking of the causes of insanity among the working classes as compared with those among the savages, he remarks: "It is constantly forgotten that while there is nothing better than true civilization, there is something worse than the condition of certain savages, and that almost anything is better than that stratum of civilized society which is squalid and drunken and sensual; cursed with whatever of evil the ingenuity of civilized man has invented, but not blessed with the counteracting advantages of civilization." In regard to the poorer and unlettered classes the teaching of lunacy statistics points to two facts: that wherever there is most pauperism, there, as a general rule, will be the largest amount of insanity. Nor merely does insanity pauperize, but mal-nutrition and the manifold miseries attendant upon want favor the development of mental disease, and here, too, intemperance stands as the foremost cause of the disorder. A broad study of the relations of modern life to insanity shows that it is of a many-sided and complex character; the rich and the poor, from different causes, though certainly in one respect the same cause, labor under a large amount of *preventable* lunacy; beer and gin, mal-nutrition, a dreary monotony of toil, muscular exhaustion, domestic distress, misery and anxiety, account largely, not only for the number of the poor who become insane in adult life, but who from hereditary predisposition are born weak-minded or actually idiotic; that among the middle classes stress of business, excessive competition, failures, and also in many cases reckless and intemperate living, occasion the attack; while in the upper classes intemperance still works woe; that while multiplicity of subjects of study in youth and excessive brain work in after life exert a certain amount of injurious influence, under-work, luxurious habits, undisciplined wills, desultory life, produce a crop of nervous disorders terminating not infrequently in insanity.

Has there been an increase of insanity? In Great Britain, the author says that, after making every possible allowance, there is reason to believe that there has been some real increase of insanity. It is well known that one in every three hundred in that country is either idiotic or insane.

In the prophylaxis of insanity the fundamental principle never to be forgotten is that the brain is the organ of the mind and subject to the laws of physical life in general and of cerebral life in particular. Either this is not clearly seen, or people fail to act in accordance with what they perceive. A vast amount of labor is needed before the average man or woman really comprehends that their thoughts, their perceptions, their reasonings, their feelings, their way of judging of truth itself, cannot be properly conducted unless this organ is supplied with healthy blood.

Great benefit would follow a more frequent and definite presentation of the laws of mental action, and a clear statement of the conditions which favor, permit or forbid the mind's healthy action. In short, the most homely truths and most familiar facts, when placed upon a physiological foundation, have an influence infinitely greater.

Since mental power depends upon the health and integrity of a vast nnmber of brain cells, and since this integrity and health require a suitable nutrition as to both quantity and quality, including a free supply of oxygen, the wonder is that amidst so extended and total a disregard of these conditions so many escape. The warnings of danger are graphically stated, and have a personal interest to all.

cting auto-prophylaxis we can only allude to one iz.: the education of the feelings. Very generally le is the remark of the great French mental physician, erol: "We take great care to form the mind, but forget that the heart, like the mind, has need of edu-

ort made by the Howard Association, 1877, says: enths of the young criminals sent to the penitentiary oyed school advantages, but three-fourths of them have rned to do an honest stroke of work. Our children eir poor little brains crammed full of all kinds of le knowledge of names and dates and numbers, and gible rules, till there is absolutely no room left to hold he simple truths of honor or morality, which former ons deemed more important than all the learning of s."

more, equally as important as the contents of this ld be written on this subject. And not least among results will be the awakening of those who shall he good tidings of the means for maintaining intact n mind.

EATH, AND THE DISEASES WHICH GIVE IT A FETID R. With Directions for Treatment. By Joseph W. e, M. D. Cloth; pp. 108. New York: D. Apple- & Co. 1878.

tally, many works speak of some one cause of fetid the breath. Here, for the first time, in so far as we , these causes are all collected in one volume. Truly, o are frequently brought into close contact with human all grades, will appreciate any effort made to eluci- obviate bad smelling breaths.

rk opens with a brief statement of the physiology of cay, and respiration. Nothing new is brought forth, ld is placed in relation to the elimination of waste or materials.

orbid condition of the system which prevents the n of metamorphosed nitrogenized tissues through the mucous membranes of the intestines, or retards the passage of the decomposing detritus through the bowels, will produce a fetid breath. The same result follows structural diseases of the kidneys or liver. Again, if the waste of tissue exceeds the repair, as in chronic debilitating diseases and low fevers, the eliminating glands are unable to do the work imposed upon them, and elimination by the breath follows. The various diseased conditions which prevent the intestinal glands from eliminating the products of destructive metamorphoses, are mental emotions, constipation, indigestion, congenital deficiency in the eliminating glandular system, general debility, and low form of fever. The local causes are decayed teeth, caries of the nasal or maxillary bones, ulceration of the lining membranes of the nose, mouth, pharynx, larynx, trachea, or bronchial tubes. These several causes are fully dwelt upon, and the proper treatment set forth.

Hand-book of Ophthalmology. By Prof. C. Schweigger. Translated from the Third German Edition. By Porter Farley, M. D. Cloth ; pp. 450. Price $4.50. Philadelphia: J. B. Lippincott & Co. 1878.

This excellent work has been familiar to all German reading oculists for many years, but for the first time, it is now presented to those who only read English. It is not so well adapted to the medical student or the general practitioner as the works of Wells, Carter, etc., but to the uncommon student, or the so-called specialist, it is a capital book. The translation is so excellent, that the work reads nearly as well as if written by an English-speaking person.

Our Parks—To Be, or Not to Be. A paper read before the New York Academy of Sciences, April 7, 1877, and February 7, 1878, by Edward Seguin, M. D. Paper, pp. 24.

This little paper sets forth what has been done to make the public parks, public schools and conservators of the public health. To accomplish these ends they should not only be

ttractive places of resort, but they should be so arranged and
lanted as to be schools of taste, and means of scientific instruc-
on. While beautiful to the eye, they should be so stocked
ith plants and animals as to give those who visit them impres-
ve views of the variety and the system of nature.

Their vegetation should include as large a number as possible
plants of scientific or economic interest, and those so
ranged and labeled as to educate the understanding, as well
please the eye.

Arrangements should be made so that children, by recreation
id study in these parks, might escape the evils of school life.
he topic is one of far-reaching importance, and we trust that
r. Seguin's work may end in the establishment of new parks
id the remodeling of old, for these beneficent purposes.

ONGENITAL OCCLUSION AND DILATATION OF LYMPH CHANNELS.

By Samuel C. Busey, M. D. Cloth ; pp. 178. New York :
William Wood & Co. 1878.

This little book is a republication of a series of articles which
ive appeared in the *American Journal of Obstetrics.* With
defatigable zeal the author has ransacked the literature of all
nguages for the cases on which to base his studies of this rare
it remarkable disease. We hope his work may stimulate a
ore careful study of other diseases of the lymphatic system.
The illustrations (150 in number), vastly increase the value
the book by elucidating the text, and depicting that which
rds could not.

SPENSION AS A MEANS OF TREATING SPINAL DISTORTIONS.

By Benjamin Lee, A. M., M. D. Paper ; pp. 23. Extracted
from the "Transactions of the American Medical Associa-
tion."

This is a capital paper by a master of the subject. Points
de in it worthy of remembrance by all: (1) As muscular
traction invariably accompanies and aggravates spinal dis-
tions of every kind, it follows that simple rest in the prone
upine position, is not in itself a mechanical agent of suffi-
t power to overcome or relieve them. (2) As the condition

in vertebral cases is closely analagous to that existing in an ununited fracture of a long bone, it follows that the patient can never be so reduced or exhausted as to render the use of mechanical means dangerous or inappropriate.

CARBOLIC ACID INJECTION IN THE TREATMENT OF PILES—RADICAL CURE. By A. B. Cook, M. D. Paper; pp. 8. Reprint from *American Medical Bi-Weekly.*

OBJECTIONS TO THE USE OF CARBOLIC ACID IN THE TREATMENT OF PILES. By J. M. Mathews, M. D. Paper; pp. 8. Reprint from *American Medical Bi-Weekly.*

These two articles complement one another in many respects. Both, however, agree that the acid should be used in the smallest tumors, or if it be used in a large tumor, only one part should be injected at once, and then after several days, another portion. Lastly, the smallest possible amounts should be used in injecting.

AMPUTATION OF CERVIX UTERI. By W. H. Wathen, M. D.; pp. 12. Reprint from *Richmond and Louisville Medical Journal.*

This gives the history of the operation, the conditions in which it is indicated, with the results and dangers attending it. It describes a pair of scissors invented by the author, for excising the cervix; also a double tenaculum forceps, contrived to steady the cervix while it is removed by the scissors. A case is reported in which the scissors were used with capital effect.

TUMOR OF THE MALE BREAST, AND CYST OF THE NECK. By J. H. Pooley, M. D. Paper; pp. 15. Reprint from *Ohio Medical and Surgical Journal.*

STERILITY AND ITS TREATMENT. By W. H. Wathen, M. D. Paper; pp. 11. Reprint from "Transactions of Kentucky State Medical Society, 1877."

SCARLATINA IN CHICAGO—PARTICULARLY THE EPIDEMIC OF 1876–77. By Charles W. Earle, M. D. Paper; pp. 22. Read before the Illinois State Medical Society.

THE DETROIT LANCET.

VOL. I. AUGUST, 1878. No. 8.

Original Communications.

Pneumonia; Is it an Infectious Disease?

A PAPER READ BEFORE THE N. E. D. MEDICAL SOCIETY, BY JOHN S. CAULKINS, JUNE 26, 1878.

DEFINITION.

Pneumonia, or pneumonitis, as Flint prefers to call it, is an inflammation of the tissue that forms the air cells of the lungs, and perhaps of the capillary air tubes as well. Stokes says that he who calls pneumonia a bronchitis of the terminal air tubes would hardly be guilty of a misnomer.

The inflammation is croupoid in character; that is, it is attended with the exudation of coagulable lymph, and must be placed in the same category with diphtheria, membranous croup, and perhaps dysentery—the category of inflammations of mucous membranes attended with exudation. It was once the fashion to say that croup was the only inflammation of a mucous membrane that had the habit of serous membranes, of throwing out lymph on their inflamed surfaces. Diphtheria, with its sorrowful history, was not yet known, and the exudation in pneumonia was explained by saying that it was the parenchyma of the lungs that was inflamed and exuded the lymph, and not the lining membrane. After the microscope had almost deprived the indefinite term parenchyma, as applied to the lungs, of meaning, and had shown the further facts that it was the tenuous membrane lining the bronchioles and air cells that was the seat of the inflammation in pneumonia; and that this membrane was destitute of mucous follicles, and was covered with tessellated or pavement epithelium, something like the single layer of flattened cells that constitutes the exterior of the serous membranes, this last fact was used to account for the exudation. It was held that the membrane was really serous, although it was the continuation of a mucous structure.

There may be much in this, since it is doubtless true that serous are much more apt than mucous tissues to exude plastic lymph, and this membrane approximates to the serous variety; but it still leaves us without explanation for the exudation in croup, diphtheria, dysentery, aphthous sore mouth, etc. We must own that mucous membranes are much more apt than was once thought to exude plastic lymph. Probably there are those present besides myself that have seen it growing, in malignant cases of diphtheria, in the nose, and even on the external skin, behind the ears, and in the folds of the skin of the neck.

Without explaining the how or why, we define pneumonia to be a croupoid or exudative inflammation of the bronchioles and air cells of the lungs, and come to speak of its

CAUSE,

Which will not need to detain us long, for the reason that it is unknown to us. It was once thought that prolonged exposure to cold and wet—what is commonly called taking or catching a cold—caused it. It was supposed that in consequence of the chill of the surface, the blood was driven to the lungs, and produced the inflammation as a result of the engorgement. This theory will not probably have many supporters now, since observation sufficiently teaches us that the disease will begin without appreciable exposure. Flint remarks that the attack not infrequently is fairly attributable to some unusual exposure, such as working in the cold and wet, or sleeping out of doors at night, but in spite of this opinion of his, we must count such influences, at the most, as ist of indirect or predisposing causes, and hold that the proximate cause remains unknown. It is doubtless true in the total of those that get the inflammation of the s, a certain percentage will be found that have just under- unusual exposure and hardships, but the same can be said ny disease—typhoid fever, measles, or small-pox. No one assert that these diseases are caused by exposure or hard- s. Why, then, should we think so in the other case?

e late John M. Lamb, a pioneer and prominent citizen of er county, died of pneumonia in 1872, the year of the t fires in the woods. He fell sick immediately after under- g severe and protracted exertion in fighting fire to save property; and there was another of the early settlers of county, Simon Hodges, died of the same disease, under ar circumstances. Hasty generalizers might say that the se that killed these men was caused by the inhalation of heated air and smoke, or by cold taken after the exhaust- abor; cautious generalizers will say that probably these would have had an attack of pneumonia had they not rgone the labor and exposure, which bore to the pneu- ia, not the relation of causes, but of coincidences.

orses are subject to pneumonia to a greater degree than human family, both in respect to frequency and rate of ality. More young, valuable animals die of it than of other, perhaps than of all other diseases. (We may ark parenthetically that perhaps this is because our ins, the farriers, persist in bleeding their patients, while us blood-letting has become, as Sir James Paget says, one he lost arts. Depletion, whether from loss of blood or n drastic purgatives, is poorly borne in pneumonia.)

mong the large number of horses that have died of the ase under my observation, but one case is remembered that d be attributed to exposure. The horse, overdriven and with perspiration, was turned late on a chilly night into pasture, and was found sick in the morning. On the other l, the neighbor who has lost the most horses with inflam- ion of the lungs (I have known him to draw away three in one season) takes excellent care of them, never subjecting them to exposure or overwork. We must, then, conclude that with horses, as with men. although exposure to cold and hardship is not the cause of pneumonia, it may have much to do with increasing the mortality rate. The use or abuse of alcoholic beverages has been alleged to be the cause of pneumonia, and it doubtless is, oftener than cold or hardships, an indirect or predisposing cause, but nothing more. In a case of inflammation of the lungs that fell under my notice, the man, with the exception of an occasional spree, was not a hard drinker. He recovered from the attack, and twelve years after died as complete an inebriate as was ever known, consuming toward the last a gallon of alcohol a week. He never had another attack of pneumonia, and the *post-mortem* showed that his lungs were sound. Intemperance may add to the mortality rate among the lower classes of the cities, but in the country its influence can scarcely be observed, and in any case it is, like exposure to cold and hardship, merely an adjuvant to the

UNKNOWN SPECIAL CAUSE OF PNEUMONIA.

Concerning this cause we possess no information that can enable us to conjecture what its nature may be, except that the self-limited and definite course of the disease gives us a hint that its true place will ultimately be found to be in the group of infectious or zymotic diseases.*

THE PATHOLOGICAL ANATOMY

of pneumonia is as well understood as that of most important diseases, and the country practitioner possesses very good opportunities for its study on the dead horses; and it is his only opportunity, since the prejudices of most people do not lightly permit of *post-mortem* examinations, unless there is something very obscure in the case. No one likes to fly in the face of these prejudices, and risk the character of a sympathizing friend, by asking permission to make an examination in a case that he was presumed to understand thoroughly. In the course of a long and somewhat busy practice, the writer has never seen the lungs of a patient that died of primary pneumonia.

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* One alleged cause of pneumonia, omitted in the text, ought to be noticed; viz. want of good ventilation, or exposure to breathe air laden with carbonic acid gas. The remarks relative to intemperance and exposure to cold and wet apply equally to carbonic acid poisoning as a cause of pneumonia. Now and then a case will occur after exposure to the bad air of a crowded theater, lecture-room, or church, but the coincidence is perhaps no more frequent than in some other diseases.

In horses, there is, when the chest is opened, no appreciable collapse of the lung, which is in color darker than healthy liver—almost black—and softened. Flint says that pleuritis is rarely wanting in human beings, but with horses the rule is the other way; it is rarely found. Horses are much more liable to double pneumonia than men are. With the latter the ratio cannot be much more than one in twenty; with horses it is as much as one in four or five, and nearly always fatal.

CLINICAL HISTORY.

Pneumonia begins with a chill. Some, perhaps nearly all, authorities say, that it may begin without it; but according to the best recollection of the writer, he has never seen such a case, and he has always noticed that the severity of the chill was the exact measure of the severity of the subsequent disease. In most cases a pain in the affected side, about the nipple, comes with the chill, but is not always severe, and often not noticed.

The chill is followed by profuse sweating, and some abatement of the other symptoms, such as headache, nausea, thirst, and general uneasiness. At this stage of the disease there is some danger of mistaking it for intermittent fever, especially if the pain in the side is wanting. This mistake in diagnosis is sometimes made. A former acquaintance of the writer made it persistently. If called to see a patient that had had a chill, and was sweating, he could think of nothing but intermittent fever, and perhaps would not discover his error till the bloody expectoration was seen. With the appearance of this, or in its occasional absence, with the appearance of the characteristic, circumscribed purple flush of the cheek, all doubt of the nature of the disease is ended, and the mistake needed not to have been made, if attention had been paid to the respiration. Care will always detect the engorgement of the lung.

Excessive cough and expectoration are symptoms of the gravity of the disease, and so in a more marked degree is delirium. If the mind remains clear, there is not much danger in the case. Thirst is a prominent and distressing symptom, and so is, in many cases, headache. The respiration is quick and labored, the pulse rapid, and the temperature high. Relief of all these symptoms marks the end of the exudative process and the commencement of resolution, which may be roughly stated at seven days from the attack—in some cases less—rarely more, unless there is an extension of the inflammation. The rapidity with which resolution then takes place, has always astonished observers—two days being, in any favorable case sufficient—while frequently the process is finished in half of the time. After resolution is completed, recovery of the strength is very rapid—more so than in any disease of equal gravity.

Authorities say that pleuritis is the complication most frequently seen in pneumonia. Its presence is indicated by pain of more than common severity. Bronchitis exists in cases marked by an unusual amount of cough. A slight degree of jaundice is frequently observed, and it is probable that torpidity of the liver is an ordinary occurrence, especially in malarious districts. Formerly it was common to see herpetic eruptions around the mouth, like those which we see in fever and ague. This would seem to be an indication of malarial complication, and the fact that such eruptions, now that the country is less malarious, are less frequently seen, lends probability to the idea. Such cases might be quite distinctively called bilious pneumonia, and the term to a certain extent would be interchangeable with typhoid pneumonia, but not, as has been held by some, wholly so, for the reason that other depressing agents besides malaria may be factors in producing the so-called typhoid state of pneumonia.

PROGNOSIS.

In uncomplicated cases, in sound constitutions, pneumonia generally terminates in recovery; but the actual death rate is high.

All circumstances of a depressing character, that weaken the power of resistance, and lower the vitality, tend to produce fatal result. When marked by depression and great severity, he disease is spoken of as typhoid pneumonia—a vague and ndefined term that does not denote anything of the enteric haracter of typhoid fever, but something of its muttering lirium, coma vigil, trembling tongue, and jerking tendons. There is nothing distinctive denoted by the term typhoid; is merely used to describe cases of severity. The amount blood in the sticky expectoration is no measure of the pending danger, since the color of the sputa varies, both in d and severe cases, from brick red to straw yellow; but the st and delirium are real and valuable prognostics. It would be far from the truth to say that they are, in uncomplicated es, the gauge and criterion of the result, and that hope ebbs flows as these two symptoms increase or wane. Blueness the lips and skin is an unfavorable prognostic.

othing in the above remarks is intended to invalidate the that the unknown special cause of pneumonia, like that very specific disease, may exist at times in greater than al intensity and concentration, and give to the attack a esponding character of malignancy, even in the soundest titutions.

This is a consoling reflection to the medical gentleman that so unfortunate as to lose patients with pneumonia, and it uld admonish us against uncharitableness and self-conceit en we hear that any of our neighbors have had such bad k.

We reach now the most important and interesting part of r subject, the

TREATMENT OF PNEUMONIA.

There was "once on a time," a physician who had a student to whom he had imparted the art and mysteries of his profession, till he (the student) supposed that he had acquired *all* that his preceptor had to impart, and thought it time to go *to* seek his fortune by the practice of that which he had learned. As he was about to take his leave, his preceptor said to him: "My son, you have studied long, and have learned much; but there is one thing of more importance than all that you have yet learned, that I have not yet communicated to you, and without which you are illy prepared to go into the world to practice the sublime art of medicine."

The student was surprised to hear this, but as he was animated with the praiseworthy ambition of learning all that there was to learn, he besought his master to communicate the much coveted secret on the spot. This the physician was willing to do, but he protested that it could not be imparted without a fee proportionate to the importance of the matter, since it had cost him much study to discover the secret, which would be a safe and sure guide to the student in every emergency, and was, besides, a principle of such wide application, that it was equally fitted to all diseases, and one that would, if he faithfully followed its precept, make him useful to the world.

The student paid and departed, bearing with him his great secret in a sealed envelope, with orders not to open it till he was called to see his first patient. The occasion having arrived, the newly fledged doctor, somewhat puzzled over his first case, broke the seal of the envelope, and read:

"Be sure never to do anything to make your patient worse."

The student's first thought was, that, in the language of modern slang, he was badly sold; but on reflection he concluded that, since the information cost him so dearly, he would use it, and by faithfully and diligently following the precept, he became a famous physician, and accumulated great riches.

It will be well if we, too, heed this precept, and make it a rule of action, and if we do not, like the man in the apologue, become rich and famous, we may at least be more useful.

Being ignorant of the cause of pneumonia, we are of course ignorant of its rational treatment, and in this blindfold condition we need to be careful that we do nothing to make our patients worse.

There is no uniformity in the medication that has been employed for the relief of pneumonia. To say nothing of the different medical sects, with their varying treatment, it will be found that almost every individual practitioner of our own school has his peculiar method, and that no two of us treat it alike.

The advocate of each particular plan of treatment boasts loudly of its success, and is equally ready to appeal to the *argumentum ad numera* to show its superiority. The homeopaths make the preposterous claim that they only lose three per cent of the total of their cases. It is evident, then, that the sick, with this disease, will recover under many widely different systems of medication, and indeed, with no medication at all, since the *honest* practice of homeopathy is equivalent to no medication.

It follows from this state of the question, that the conviction is almost forced upon us that pneumonia is never cured, but that it is a disease with a history, or definite course to run, like measles, or small-pox, and no more influenced than they are by remedies. Let it not be thought from what has been said that the writer has entirely given up the use of remedies in this disease. He does not wish to be so understood; for the fact is recognized by him, that there are effects of the unknown cause that can be to a certain extent modified. Failing to remove the cause, the next best thing is to remove, if we can, its effects. For instance, if we spill sulphuric acid on our hands, we should instantly wash it away; not doing this in time, we seek to remove the irritation by cooling lotions. When it was remarked above, that we are ignorant of the rational treatment of pneumonia, it was meant that we are ignorant of what to do to fulfill this primary indication, the removal or neutralization of the cause. It remains now to speak of what can be done to remove the effects of that cause, and the writer is aware that there are those present that will differ from him in respect to some of his conclusions.—(*See below.*)

(*a*) Pain is one of the effects of this cause that can and should be alleviated. Every year that we grow older impresses us more with the words of Sir Benjamin Brodie on his death-bed: "Physicians should give more attention to the means of relieving pain. Pain wastes and consumes the stock of vitality that is to last the patient through, and the means to relieve it are true conservative agents. Opiates and heat externally are the best means to do this, and they should be used up to the point of giving, if possible, complete relief.*

(*b*) On this point sharp criticism is expected. All inflammations of important parts are attended with fever, and fever is, or is attended by, increased heart-beat. Every additional stroke of the heart consumes its share of nervous energy and vitality, and leaves the stock so much the lower. If, now, we had an agent that would keep the action of the heart within its normal limits, that agent would be a true conservative remedy, saving to the stock of vitality the amount of it necessary to perform the additional number of heart-beats. Have we such an agent that can control the excited nerve centre that overflows its tumultuous innervation on the heart, and makes an important factor in the state that we call fever? It is not intended to speak dogmatically, or even confidently, on this point, but there seems to be some evidence that the veratrum viride is such a true heart tonic and sedative. If it should be eventually proved that the above view of its action is correct, sedation of increased arterial action by the use of this agent will be a valuable resource in this and all acute diseases.

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* Blisters, like heat externally, are advocated, on the revulsive principle, for the relief of pain. They seem to be the most useful after the third day—previously to that only seeming to add to the existing irritation. The doctrine that they promote resolution seems plausible and probable enough, but lacks proof.

(*c*) Extensive inflammations are accompanied by an increase of the fibrin of the blood, which in the disease under discussion, is deposited in the air cells of the lungs. This deposit of fibrin corresponds in amount with the extent and intensity of the inflammation, and with the danger to life.

If we had the means to check and control this formation of fibrin, the disease would be accordingly modified and its danger lessened.

Have we such an agent in mercury? There is some reason to believe that we have. Good physiologists say that mercury decreases the amount of fibrin; and, during the stage of exudation, it is well known that the ordinary effect of mercury on the salivary glands is suspended. This is not because there is no absorption of the drug, for catharsis is caused by it as lively as ever, if not guarded by opium. Its force, then, is expended somewhere in the system, and it is a probable inference that it is in combating the formation of fibrin.

Criticism is expected on this point, too.

(*d*) In all fevers, essential or symptomatic, one great source of danger to life is the abnormal heat. The nervous centers cannot endure with impunity the presence of blood heated many degrees above its normal point, and it is a rational indication to reduce the temperature as near as possible to a healthy standard. Quinine, in large doses, is of course the best means which we yet possess with which to effect this. By a large dose is meant 10 to 15 grains, not the huge doses of the Germans. Quinine was used empirically in this way by western and southern physicians especially, before its antipyretic power was known—the symptoms that mostly guided us in its use in desperate cases of pneumonia being stupor and subsultus. The thermometer not being in use, the temperature of the heated blood was not accurately known, nor the mischief which it would do to the tissues at all appreciated. The large doses of quinine were consequently not given to reduce the temperature, but because experience had shown that they were beneficial.

(*e*) This brief list includes all the internal remedies for the administration of which any shadow of rationality can be given; but there is an empirical remedy, which was famous in its day, and is still used to some extent. It is now about half a century since Rasori and Thomasini first used tartar emetic for a contra-stimulant in pneumonia, and with a far greater number of recoveries than had attended former methods of practice.

Whether there is any virtue in antimony to cure pneumonia or not, there can be no doubt of the benefit that its introduction into practice was to the world by showing that pneumonia could be cured without blood-letting.

The prejudices of the writer have been wholly in favor of the use of this agent, but prejudices have no place in a scientific paper, and candor compels us to acknowledge that we have no positive evidence that this medicine influences the course of the disease. It appears to do so, but it may be that the result is only a gigantic instance of the "*post hoc, ergo propter hoc,*" and that the good apparently seen is due to the efforts of nature, and not to the medicine. There is, however, one reason for making a guess that it does have an influence on the course of the disease, and that is the fact that it does not have, in pneumonia, its usual effect on the economy; that is, it does not cause nausea to the same extent that it does in health or in other diseases. According to the law of the conservation of forces, it must have an effect in some direction, and it may be that its energy is spent in destroying the unknown cause of the disease.*

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* Nothing has been said in the text with regard to good care and nursing—they being in all cases presupposed, but one item is of such extreme importance, that it should be mentioned, and that is the air supply. The diminished capacity of the lungs for aerating the blood calls for air rich in oxygen—the best there is out of doors. Many people have a fear of letting fresh air, especially night air, come near the sick, and keep the doors and windows shut. This is hard on those that lie in small, tight rooms, and are obliged to share what oxygen there is with their attendants. Between such rooms and being turned out of doors, with only sufficient shelter to keep off sun and rain, the choice would be the latter alternative. We need to look to this, and not let our patients slip through our hands for want of pure air. When the inflammation is severe it would seem to be good treatment to supply oxygen artificially.

CONCLUSION.

That the rational treatment of pneumonia is not yet discovered is a fact that we must acknowledge, and make the best of, but in the mean time let us do nothing to make our patients "*worse.*"

An Anomalous Case in Practice.

REPORTED FOR THE CLINTON COUNTY MEDICAL SOCIETY,
BY C. H. TIDD, M. D., GENEVA, IOWA.*

I beg leave to present the following case, and the treatment pursued in the same, for two reasons: First, because I believe it to be unique; and, secondly, with a hope that the discussion of the case may throw some light upon its nomenclature. I was called on the evening of March 1st, to see Daniel B.——, æt. 27. Upon inquiry learned that he had been feeling badly (as he expressed it) for several days. He first noticed a slight chill, followed by cephalalgia, and confusion of ideas. Appetite very poor; bowels quite loose; discharges presenting, however, but slight appearance of ochre; epistaxis quite profuse; face slightly flushed; pulse 110; axillary temperature 101½ degrees. I at once pronounced this a case of typhoid fever, with symptoms so well marked that there seemed to be no possible chance for doubt. Permit me to say here, that there was very little tympanites, and no abdominal tenderness. I placed him upon 15 drop doses of acid phosph. dil., to be given every two hours, to be alternated at each second dose, with one teaspoonful of the following: ℞. Fl. ext. aconite; fl. ext. gelseminum, *aa.* gtts. xij; syr. aurantii cort. ℥ ij. Mix. Also left four powders containing each two grains quinia sulph., one of which was to be given every six hours.

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* This paper was read before the Clinton Medical Society, July 2d, 1878. After discussion, the following resolution was passed:

"*Resolved*, by the members of this society, that the case reported by Dr. Tidd was a case of septic poison, and that the typhoid symptoms were produced by the absorption of the poison, and at the commencement of the disease, not being aware of the patient having come in contact with any poison, there was not any known way to distinguish it from a case of typhoid fever, and that a vote of thanks be tendered Dr. Tidd for his valuable paper.

"H. S. FARNSWORTH, Sec. of C. C. M. S."

March 2. Found symptoms about as they were yesterday, save that cephalalgia seemed more intense; pulse 112, and temperature raised to 102 degrees. Ordered cloths wrung out of cold water to be constantly applied to the head; other treatment continued as before. He seemed to have an irresistible desire for milk, and I directed that he should have all he desired, together with beef tea, chicken broth, etc., *ad libitum*.

March 3. Patient delirious, talking incoherently most of the time; is constantly trying to get out of bed, and seems determined to go to his brother's, a distance of five miles, although he is now at his own home, with wife and brothers around him. Pulse 120; temperature 103 degrees; treatment continued as before, with addition of the following recipe to be given through the night, or until the delirium is controlled. ℞. Antim. et potassii tartratis gr. ss.; pulveris opii grs. viij. M. ft. chartulæ, No. 8.

March 4–5. No apparent change.

March 6. Slight tympanites is present this evening, and patient complains of tenderness when pressure is made over the abdomen. Delirium was not controlled last night with the powders, although he slept considerable during the night of the 4th; increased the dose to ⅛ grain of the tartar emetic, and 1½ grs. opium.

March 7. Does not ask for food or drink, yet will take both when presented to him. The coating on the tongue and the sordes seem heavier than I ever noticed before on any patient, and each seems very hard and dry. Tympanites and abdominal tenderness both increased from yesterday. Delirium this evening seems more violent than ever before. Following the advice or suggestions of Dr. Graves, I ordered ½ ʒ doses tr. digitalis every three hours during the night in lieu of the powders of opium and tartar emetic; also ordered turpentine in mucilage to control abdominal symptoms, and to counteract the condition of the tongue and the sordes.

From the 8th to 13th, there were no noticeable changes, save that the digitalis seemed to control the delirium perfectly, and to produce no untoward symptoms.

March 14. At my visit this evening I noticed a swelling about the size of a hulled walnut, which seemed *not* to be formed on the biceps of the right arm, but to protrude through the fibres of the muscle; no other was found upon any part of the body. Pulse 130; temperature 104 degrees. Tympanites and abdominal tenderness much greater than ever before. Ordered an injection of turpentine and milk to allay the flatulence; also stupes of turpentine to be applied over the abdomen. Other treatment about as before, with digitalis in reduced doses often enough to control the delirium.

March 15. The swelling on the arm about the same size as on yesterday, but find another on the left arm, occupying a site corresponding to the one on the right arm, which to-day looks of a purplish hue; no other swellings as yet appearing on the body. To-day I learn for the first time (the patient living ten miles from my office), that he had a horse previous to his illness, which *had* what veterinarians call button farcy, and that while working with him, before he finally shot him, he got some of the pus on one of his fingers, which he had accidentally cut a few days previously, and which he neglected to cleanse thoroughly, probably through ignorance of its danger. Of this he complained for a few hours, but as it ceased to pain him, the circumstance seemed to have been forgotten until I elicited the information by my remarks about the tumors which had appeared. This indeed seemed to solve the mystery which had enveloped the case from the start, and to explain in a measure the severity of the symptoms from the onset of the disease. I confess that when I first observed the swellings, I suspected that tertiary syphilis was developing, but I became assured that he had never contracted anything of the kind, having been raised in the country, and never visiting any place where he would have been likely to meet any malady of that kind.

March 16. Tumors on arms both seem purple; also notice a new one on the flexors of each arm. Typhoid symptoms not ameliorated in the least; does not seem to be able to collect his thoughts sufficiently to tell whether they are painful or not. According to the suggestions of Prof. Palli, of Milan, in cases of similar nature, I discontinued the use of all acids, and gave of the sulphite of soda ʒ ss every three hours; also gave him grs 3 quinia sulphate every three hours alternating with the soda; continued the administration of turpentine and mucilage; also the injections of turpentine and milk; ordered all the nutritive broths he could bear.

From the 17th to the 24th, tumors similar to the ones first noticed, appeared on various parts of the body, appearing next on the gluteal muscles, then on or in the rectus femoris and vastus ext. and vas. int.; then on the muscles of back part of thigh. Next we find them on the gastrocnemius mass and feet. One very singular feature of these swellings was, that they always appeared on the right side of the body first, followed on the succeeding day by those occupying corresponding sites on the left side. Another singularity was they *always* appeared in the night. To-day Dr. Foster, of Iowa Falls, and Dr. Leas, of Hampton, were called in consultation, but neither of the gentlemen having ever met a similar case, were enabled to throw any light upon the case; yet each concurred in the opinion that it was caused from the absorption of poison from the diseased horse, and each stoutly maintained, with myself, that at first the case would seem to any physician to be a typical case of typhoid fever. At this time it was decided that all that could be done was to support the vital powers, and direct our attention to the blood alone; it was therefore determined to give for two days a saturated solution (if the term may be allowed) of tr. ferri mur. and quiniæ sulph., 30 minims of the former, and 3 grains of the latter, every three hours, to be followed for two days with the sulphide of soda. Beef tea, brandy punch, etc., as often as he can be induced to swallow. As yet, the patient seems to be partially conscious, yet no intelligible answers can be elicited from him, although if asked any direct question, he will at times, after a lapse of perhaps a minute, answer no, or yes.

March 25. To-day a large tumor shows on the forehead, larger than any that has yet appeared. Since these eruptions have appeared, the pulse has remained steadily at about 120, in spite of all remedies to reduce or control the heart's action, but the temperature has steadily declined until to-day it is only 99½ degrees. Tympanites not so great as it has been, although the iliac tenderness seems greater as elicited by sudden and hard pressure. The perceptive faculties all seem blunted, and no answers at all can be obtained to any questions, and only an appearance of uneasiness when pressure is made on the abdomen; do not seem to get any response whatever to remedies.

March 26. To-day we find some six or eight of these tumors along the muscles of the back and neck, while those that appeared first are exuding a yellow greasy matter. I opened to-day with an old lancet the first two which appeared; found no pus in them, but the interior seemed filled with a mass more nearly resembling a section of a German blood pudding than anything else I could liken it to; it did not seem perfectly dry, nor yet was it moist. The contents could be scraped out of the center, but seem to adhere to the sides of tumor. There does not seem to be any sack formed within the tumor. Upon pressing the mouth open, I find a small tumor on the tongue, about half the size of an ordinary filbert; seems to be entirely unconscious, and utterly unable to swallow any fluids.

March 27. All of the tumors look dark and purple, and nearly all are exuding the yellow oily matter spoken of yesterday, which to-day seems strong and very offensive; the one on the forehead seems to have turned wrong side out, so to speak, and looks frightful, and the exudations from it seem to be burning the eyes out, although an attendant is constantly wiping it off. We find now great difficulty in getting any one to take care of him, each feeling afraid to enter the house, so that the whole care devolves upon the wife and two brothers. The swelling on the tongue has increased so that it fills nearly or quite two-thirds of the facial cavity; the lower jaw has dropped down, and the patient is the most hideous sight I ever beheld. Owing to the stench which arises, the doors and windows have to be kept open constantly. Surely he cannot last many hours in this condition. Feeling that medical skill, or at least what little I possess, is futile, I feel like giving up the case to die, without seeing him again; but being desirous of seeing the end, I promise to return to-morrow.

March 28, 29, 30. Patient still breathes, although he cannot be said to live, it now being nearly five days since he has swallowed a mouthful of nourishment, although he has had frequent injections of quinine, with milk. There is an almost uninterrupted escape of gas from the bowels, which is certainly the most offensive I ever witnessed, sulphureted hydrogen gas not excepted.

While I was with the patient to-day (March 30), he expired, without a perceptible struggle.

Now, gentlemen of the society, *what was* the case I have reported? Was it one purely of septic poisoning, or was I right in first calling it a case of typhoid? If it was typhoid, did the septicemia co-exist with it, or were the typhoid symptoms merely the prodromic symptoms of the disease, which afterwards developed? In similar cases, what would be the proper line of treatment, and by what line of differential diagnosis could the disease be foretold?

Civil Malpractice—Article IV.

BY STILES KENNEDY, M. D.

(A case of compound comminuted fracture of the leg of a man, thirty-eight years of age, in general good health; fracture midway between ankle and knee, produced by a blow upon outside of leg. The tibia broken obliquely and fibula nearly transversely, with an open wound opposite the upper end of lower fragment of tibia.)

Continuing a review of the facts and medical testimony in the Travis (defendant) case, LANCET, pages 182, 414, I come to a consideration of the subject of *splints*. The almost numberless variety and forms of splints for the fracture of every bone is suggestive at once of the great difficulties to be met in treating cases. "Place" and "circumstance" may deprive the physician of any of the many excellent and well-known splints in common use by the profession, but that would be no excuse for not carrying out certain well-known principles of treatment.

Travis's medical witnesses, Drs. Case, stated that they were familiar with some of the means usually employed by physicians in treating fractures like this: the fracture-box, double inclined plane, and starch or plaster of Paris bandage. They did not know whether the splint used on Travis was usual or not; did know that "I ought to have had a foot-piece on it," and that "in fractures of the kind extension was *not* necessary."

Now, Travis had an oblique fracture, with great overlapping of bones and such contraction of muscles that, as the evidence shows, a powerful direct effort failed to "set the bone." What was to be done? To leave the bones lapping to any great extent without further effort would certainly lay the physicians liable. They must either saw the bone off, then put it in place and lay the limb in a secure position, "fracture-box," tin trough, pillow, sand bags, etc., or the tendon of Achilles might be divided to overcome muscular contraction; then, if the physician was in right good luck, he might get along with a double inclined plane, but it is not likely; or the leg might be flexed upon the thigh, so as to relax the muscles, and the bones then pulled into position. Now a common board splint may be put on the limb while thus flexed (Erichsen), but if it can be pulled down in line with the body, and the splint put on, so much the better.

Extension is necessary in fractures of this kind, if the knife and saw are to be dispensed with.

Of what use is a foot-piece? Simply to give position to the foot. Now, when there is much pain the foot will drop forward in spite of you and the foot-piece; that is, the heel will be retracted. Every physician of any experience can recall this fact. Dr. Bigelow, in the case *Leighton vs. Sargeant*, testified that "you cannot fasten the foot so that the patient will not draw the heel back from the foot-board to ease the pain." In the next place, in a fracture like the one under consideration, or any of the more serious fractures of the leg, it is almost a matter of indifference as to the "angle" the foot makes. What is to be obtained first is comfort; the position of the foot may be looked after three months hence. It was to correct the position of the foot that the Drs. Case thought a foot-piece necessary.

There are two principles involved in making a common board splint, however, that must be kept in view. 1st. The splint must be wide enough not to let the edges press against the flesh of the limb. 2d. It must be long enough to cover the joint above and below the fracture. "I have no hesitation in saying," says Erichsen, "that a surgeon of ordinary ingenuity and mechanical skill may be fully prepared to treat successfully every fracture to which he can be called by having at hand a smooth board half an inch thick and a sheet of pasteboard." Again, "In fractures of the leg, as in all other injuries of a similar kind, no one plan of treatment should be adopted exclusively, but the means employed should be varied and suited according to the peculiarities of each individual case." It is well for the physician and the patient that such are the facts. The physician cannot, for many reasons, be expected to keep on hand the better instruments in use for each fracture that may possibly arise, and after an accident occurs it is too late, generally, even if his patient can bear the expense, to send to the instrument maker, unless he is near by.

There is a class of patent wood carved splints occasionally seen hung up around the shops of doctors who advertise themselves as possessing a set of *scientific* splints. These have met the condemnation of every intelligent physician throughout the country. Hamilton approaches justice to the subject when he says, "Constructed with grooves and ridges and variously inclined planes, for the avowed purpose of meeting a multitude of indications, such as to protect a condyle, to press between parallel bones, to follow the subsidence of a muscular swelling, etc., they never meet exactly a single one of these indications, whilst they seldom fail to defeat some other indication of equal importance. They deceive especially the inexperienced surgeon into the belief that he has in the splint itself a provision for all these wants, and consequently lead him to neglect those useful precautions which he would otherwise have adopted." Therefore, under ordinary circumstances, and in usual places, the physician is only expected to be provided with plain strips of wood, zinc, tin, pasteboard, felt or leather, and with bandages get up an apparatus which will successfully meet any indication that may arise. In the term bandages I include everything of that kind that can be prepared at once, as the starch and plaster of Paris bandages. In a fracture of the kind under consideration the weight of authority is against putting on these immovable dressings until after the lapse of ten to twenty days after the accident, and in the Travis case the testimony shows that eschars had formed on the ankle, which would not permit the use of this sort of dressings, as the ankle must be covered by the dressing and permanently fixed by it. Later in the treatment of Travis a plaster of Paris bandage was put on, and I think to no advantage to the patient.

This is a good place to consider the question of *Prognosis.* "Danger to the life of the patient is slight," say the Drs. Case; "perhaps one in fifty !"

Bryant states that the loss of life in compound fractures of the leg is actually, so far as his experience and observation goes, one in three.

Gosselin says that in hospital practice more die than get well when suppuration is present, but that in his private practice he has been able to save the lives of four out of six. Hamilton's per cent of deaths in hospital for all compound fractures of leg is over 43.

As to a more particular prognosis involving the question of time in getting a good union in fractures of this kind, the Drs. Case said, "about six weeks for a good union, the other (simple fracture) four to five weeks."

All authors give the time for good union—a union sufficiently strong—in suppurating compound fractures, at from two to three and four times the period required for simple fracture.

The phenomena of consolidation in *simple* fracture of shafts of long bones may be tabulated after Gosselin as follows:

1st Period—1st to 15th days. Rise and fall of inflammation, absorption of blood, etc.

2d Period—15th to 40th days. Formation of fibro-cartilage begin bony form. 45th day—Consolidation.

3d Period—40th to 60th days. Formation of bony substance.

4th Period—60th to 120th days. Hardening process.

In *overlapping fractures* these lengths of time are extended.

In compound fractures the length of time required for good union depends on two factors:

1st. The measure of success that attends the attempt to hermetically seal the wound.

2d. The kind and amount of inflammation that follows a failure to hermetically seal the wound.

If the compound fracture is converted into a simple one, we may have the six weeks' phase of the matter; if it is not so converted, and we have to treat a compound fracture of the shaft of long bones, in which there is a benign and superficial suppurating ostitis, as in the more favorable cases, about the following phenomena will be presented:

Suppuration established during first few days, moderate swelling, fever; pus more abundant after first week, but laudable, superficial denudations of bone, apyrexia. All these continue twenty or thirty days, suppuration growing scanty. No burrowing of pus. "Mobility of fragments begins to diminish; in short, except for the superficial suppuration and denudation, the fracture resembles a simple one that has reached this period. But the denudation continues, and the fracture goes to the sixtieth and sixty-fifth day. About the seventieth day we find it consolidated. But the fistula persists, and the suppuration which it supplies only ends twenty, thirty or forty days later, after elimination of a splinter or mortified piece of bone."—*Gosselin.*

If the inflammation affect the bone more severely, involving the intra-fragmentary space, the medullary canal and that portion of the circumference furthest from the wound, you find pus burrowing, new openings made, bone denuded above and below fracture. In order to dress it, if you are obliged to move the limb, you see at each movement the pus escape from deep parts. The case goes on thus for weeks and months, unless complications should intervene. Suppuration continues abundant; slivers of bone are eliminated from time to time, the fragments remain movable, repair does not go on. Finally, after a length of time which varies from three to six months, a callus exists at the seat of the original lesion of the bone. —*Ibid., p. 76.*

The degree of probability of a stiff ankle resulting from a fracture of this kind would have due weight in making up a special prognosis. The Drs. Case stated that it "may happen one time in fifty, or one time in a hundred," of course ordinary skill and care being used.

The exceedingly great seriousness of a stiff ankle resulting from fractures of this kind is calculated to startle those of the medical profession not well informed.

Question—(By plaintiff's counsel). Is not the probable stiffness of the ankle joint, in a case of compound comminuted fracture of the leg of secondary importance to the union of the bones?

Answer—(Dr. G. S. Case). It is not!

If probable stiffness of ankle is in importance above union of the bones, it is time we were looking after actual stiffness of that joint.

What is it? A joint may become stiff by

1st. Disuse, contraction of tendons non-inflammatory.

2d. Moderate inflammation of joint, causing fibrous bands to be thrown across joint.

3d. More severe inflammation; destruction of joint and bony formation.

The post dissection did not show (by the evidence) any bony anchylosis. The evidence does not show up to the 7th of December, even a moderate inflammation; but grant there was. There is nothing very serious about it. A little use, douches, friction; if necessary, subcutaneous division of tendons, or, possibly, give chloroform, and forcibly flex and extend the foot and break up the adhesions. The inflammatory action that follows is trifling; rest, evaporating lotions and passive motion are all that is necessary now.—(*Erichsen.*)

But the fractured bones must be united before this attempt at removing or *preventing* stiff ankles. There is no law in surgery more imperative. If the ankle is to be allowed to get stiff from disuse, what angle shall the foot be to the leg? Undoubtedly if it is to be cured in a few weeks it makes little or no difference, and that difference is decidedly in favor of the forward position of the foot, as locomotion would have a direct and positive tendency to overcome it.—(*McClelland, 498th case.*)

If the ankle is to be permanently anchylosed, then the weight of authority is to fix it as near a right angle to the leg as possible.

Dr. G. S. Case, in his testimony, says that when he first saw Travis, December 19th, he (Travis) had "ununited fracture" of the tibia. This at once opens up the question of "false joint."

The anatomical conditions present in any case of ununited fracture will vary as the development of callus has progressed or retrograded, after reaching a certain point, or perhaps no callus has been developed at all. As a rule there is fibrous or ligamentous union. This whole subject is very interesting in its medico-legal bearings, but the only question presented by the Travis case is this: How long a period of time shall pass before we declare delayed union? How long shall we wait before we declare non-union or ununited fracture? Of course now we are speaking of the tibia, and it is well to remember that even in simple fracture delayed union is very common, and failure to finally unite is very rarely met with.

Hamilton says: "In case consolidation is not completed in the usual period of time after a delay of several months, it is termed delayed union. If consolidation is not completed within a period of several months or years, it is termed non-

ion." This is rather indefinite, but still it would exclude
avis' fracture from the ununited list. Any delay beyond the
al period of consolidation would of course be delayed
on. Now Erichsen speaks of ununited fracture as a
onic condition of delayed union; so that this Travis frac-
e would not come in the list of ununited fractures, for
claims the usual time for suppurating compound fractures
be two to three times that required in simple fractures.

n this point I may be allowed to quote Gosselin at some
th, especially as he criticises one of our leading American
eons: "Here are two examples of consolidation that has
e but little progress; but notice, gentlemen, that I do not
non-consolidation; and, like Norris, perform operations in
s which would doubtless have been cured by immobility.
for myself, I claim that at least a year must elapse before
word pseudarthrosis is to be pronounced in a fracture of
leg. But to what can we attribute the delay in our
ients? I admit that I find no cause. Syphilis, scurvy,
gnancy, nursing, etc., have been invoked to explain pseudar-
osis. I cannot discover here the existence of any of these
uses; and if it is possible for syphilis to delay consolida-
on, our patients have not had it. If we examine the local
auses we find, as a possible explanation of the delay, defective
xation of the fragments; but here immobility has been too
ell maintained for us to admit this cause. Finally, I might
e permitted to believe that there is, between the fragments, a
iece of tendon, muscle or aponeurosis, or a splinter which, by
ts interposition, prevents the callus from forming, but *that is*
thing which we cannot recognize, and which, indeed, we could
ot remedy." (Page 132; italics mine.) I wish to call atten-
ion, parenthetically, to Dr. Case's testimony (page 190, LAN-
ET). He says, in speaking of the dissection, after the ampu-
ation: "I found a piece of flesh between the ends of the
ibia; the tibia was united." To return to Gosselin, he says:
Gentlemen, pseudarthroses due to non-consolidation of frac-
ures of the leg are exceedingly rare. You sometimes hear
ne speak of delays, but you have never seen any of our

patients remain without consolidation. During more than twenty years that I have practiced in the hospitals of Paris, I have not seen a single one of the fractures of the leg which I have had to treat, remain in the condition of pseudarthrosis. I am surprised, then, to find in Malgaigne's work, the statistics of an American surgeon, Norris, in which are found:

30 pseudarthroses of the humerus.
18 pseudarthroses of the femur.
14 pseudarthroses of the leg and tibia alone.

"I wish to put you on your guard against the interpretation which has been given to certain observations in this table, and against the abuse which has been made of operations designed to cure pseudarthrosis; because, at a certain time at the beginning of this century, when the operations of suture and re-section had been proposed, some surgeons in America confounded delay in consolidation with non-consolidation, and considered fractures which still gave mobility during the second or third month as having passed to the condition of pseudarthrosis. Now we know to-day that those fractures end by consolidating after four, five or six months of treatment. * * * If we remove from Norris' statistics the patients in whom they despaired of consolidation too soon, there would remain only those whose injury had not been treated at all."—*Ibid., p. 133.*

Travis' medical witnesses testify that the blood-vessels of the amputated foot "seemed grown together." They could not trace them; "could not discover any circulation on top of foot" before amputation, and of course this was produced by the bandages, "there being so many thicknesses, and applied so tightly." Pathological anatomists are discussing whether *obliteration of the veins* following fracture is to be explained by phlebitis or simple coagulation. It is a common lesion in suppurating compound fractures of the tibia. If this obliteration is due to inflammatory action, it in turn arises from the influence of the local conditions, and operates upon the inner coat. If the lesion is simple coagulation, how comes it? The local phlegmasia imparts some change to the blood.

osselin says: "I attribute the coagulation of the blood to
bitis by propagation. I even ask myself if this phlebitis
t due to the passage into the veins of irritating materials
ng from the osteomyelitis. I point out to you this spon-
ous coagulation and the resultant obliteration as the cause
complication *which is not dangerous*, but is troublesome,
lasts a long time."

avis' nurse testifies that, September 30, the fourth visit of
hysicians, the veins were full and large, and there was no
ge of color of the foot. As the alleged tight bandaging
done before this date, it is preposterous to bring it up five
ths afterwards as a cause of the veins "growing together."

e Drs. Case testified that Travis' fractured leg was much
ler than the unbroken limb; that the flesh had wasted
, and of course attributed it to tight bandaging.

anything has been clearly demonstrated in surgery, it is
muscular atrophy always follows suppurating compound
ures, and this atrophy is *permanent*, not temporary. After
it might scarcely be detected in some, but as a rule the
ured limb is lighter and weaker to the appearance, as well
fact. Gosselin broke the thighs of some guinea pigs, the
ures healed, and after several months, the pigs were killed;
muscles on the healthy side weighed twenty-five grains
than on the fractured side.[*] "I have sought," he says,
what might be the cause of this atrophy, and reached this
lusion, that it should neither be attributed to the compres-
nor to the immobility, and that it was doubtless due to a
ge in the distribution of the nutritive materials which is
onsequence of the process of consolidation." There is no
t as to these changes being in diminished or increased
to the amount of innervation present in the limb
ed.

(To be continued.)

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tient died at the Hospital Cochin, who some time previous had a fractured
r. Lejeune weighed the muscles separately, and found in each pair a notable
e. Each muscle of the uninjured limb weighed more than the correspond-
le of the injured limb.

Pneumonia.

A PAPER READ BEFORE THE NORTH-EASTERN DISTRICT MEDICAL SOCIETY OF MICHIGAN, BY DR. H. J. REYNOLDS.

The term pneumonia signifies an inflammation of the parenchymatous structure of the lung, and *the subserous areolar tissue, which covers the entire organ and extends inwards everywhere between the lobules.* We have, as of most other inflammations, acute and chronic forms. The *acute* is the form most frequently met with, and the form which the terms pneumonia, pneumonitis, etc., are usually intended to indicate. This form may be again subdivided with regard to extent, location, etc., into lobar, lobular and circumscribed pneumonia.

Lobar pneumonia is of the acute form, is the most frequent of all the above forms, and is so called because, as a rule, the disease attacks a single entire lobe at a time. Should one or more lobes of both lungs be affected, it is sometimes called double pneumonia.

Lobular pneumonia is the term used to indicate an inflammation of one or more separate and distinct lobules. It is usually the result of and accompanied by bronchitis; and like that affection, is bilateral. It is a disease almost peculiar to childhood, and may also be found in the chronic form.

Circumscribed pneumonia occurring as an idiopathic affection, is quite rare, and is usually secondary to some other affection, as tuberculosis, injuries, etc., and affects only a portion of a lobe.

Chronic pneumonia embraces the affection known as cirrhosis. It is also applied to a condition of the lung resulting from acute lobular pneumonia. It also seems probable that we may have a chronic, or, at least, subacute form of *lobar* pneumonia, as, for example, some of the cases occasionally met with where complete recovery does not take place for a number of weeks.

Pathology.—Lobar pneumonia is usually divided into three stages. The first change which takes place is hyperæmia, or vascular engorgement and exudation of serum; the vesicles now contain *air* and *serum*, and fine crepitation is heard. On examination after death the organ in this stage is found to be slightly increased in weight—which is due *mainly* to the engorgement of blood, and partly to the exudate—and has a red appearance. When cut into, the lung tissue is found to be more brittle than in health, and the serum which exuded is frothy, owing to the presence of some air. Portions of lung still float in water.

The second stage is called the stage of red hepatization. The serous exudate now becomes more solid, and lymph is thrown out in abundance, with some blood globules and coloring matter, which gives to the sputa their rusty color. When cut into it resembles a piece of liver in color—from which the stage receives its name—and does not exude serum as in the first stage. The blood-vessels are still engorged with blood, and the air vesicles are moderately full of exudate, the air being all forced out. The lung tissue is now quite heavy and lacerable, and sinks when thrown into water. In the third stage, that of gray hepatization, the lung becomes more completely solidified, the air vesicles are more tightly filled with exudate —which contains little or no hematine, or blood globules—and portions of it still sink in water; the increase in weight being now mainly due to the exudation. The cut surface now presents a gray appearance, owing to the absence of blood in the capillaries, the color of the gray pigmentary matter predominating. In children there is less of this gray pigmentary matter than in old persons, and the hepatized lung has a whiter appearance. Percussion now gives a dull sound, and auscultation reveals no breath sound, except that from the bronchial tubes. The disease has now reached its highest pitch; the temperature begins to go down, the exudation becomes disintegrated, absorbed, and expectorated, and respiration becomes more natural. This process is sometimes described as another, or fourth stage. Occasionally the disease terminates in suppuration, during which the microscope reveals pus cells here and there throughout the general exudation. Sometimes it results in the formation of an abscess.

It is claimed by most pathologists of the present day, that the exudation in this form of the disease is of the croupous, or fibrinous variety, the inflammation being of the same character as that of croup; hence it is sometimes called croupous pneumonia. The exudate is thrown out mainly into the air vesicles, some also being deposited in the walls of the vesicles and connective tissue. It is still an undecided point whether the bronchial or pulmonary arteries are mainly implicated in the inflammation. Examined under the microscope the exudate is found to be composed of a fibrillated substance, containing cells; some resembling the white corpuscles of the blood, others resembling proliferated epithelial cells.

Lobular pneumonia is generally supposed of late years to be a catarrhal inflammation, producing a corpuscular or muco-purulent exudation, and differing in this respect from the inflammation of *lobar* pneumonia; the one resembling that of ordinary bronchitis, the other that of croup. The inflammation in this form of pneumonia is said as a rule to have been primarily seated in the bronchial tubes extending down some of the bronchial twigs here and there to the lobules, which becomes thus implicated. The lobules, which are here and there thus affected, become solidified, either from exudation within them, or from plugging of the bronchial twigs leading to them, and consequent collapse; probably the latter. These consolidated lobules sometimes take on a disintegrating or disorganizing process, which constitutes the chronic form of the disease.

Circumscribed pneumonia goes through pretty much the same pathological changes as lobar pneumonia.

Under the head of the *chronic* form we have the affection known as cirrhosis of the lung. In this the lung becomes hard and contracted from pigmentary deposit. Most pathologists seem rather undecided as to the exact pathological character of this affection. It would seem probable that it might be a sort of non-inflammatory degeneration, taking on, perhaps, the nature of a growth.

Diagnosis.—The diagnosis of *acute lobar pneumonia* in well marked cases is a very simple matter, and may be made without the aid of physical signs; the chill followed by febrile movement, pain in the region of the nipple, rusty sputa, etc., being almost pathognomonic of the disease. The disease is sometimes, however, quite masked, and some of the symptoms are almost wanting. The diagnosis must then be based upon physical signs, by the aid of which it may be made with considerable accuracy. The first of these, the crepitant rale, with moderate dullness on percussion, confined to the affected lobe and preceded by the chill, is the only reliable sign in the first stage. Following this, in the second stage, we have the rusty sputa with marked dullness, subcrepitant rales and broncho-vesicular respiration, and in the third stage complete dullness, bronchial respiration, bronchophony, etc., all of which render the diagnosis more positive. Should suppuration take place, as it occasionally does, the pus cells may be seen in the sputa placed under the microscope.

With regard to *acute lobular pneumonia*, *per se*, I consider the diagnosis and treatment as a matter of little or no practical importance, and think a study of its pathological character much more beneficial and highly essential with our present knowledge of the affection; though as a rule I regard it as the *result* of a very grave affection, one in which the diagnosis and treatment are of the highest practical importance, viz., capillary bronchitis—it bearing almost the same relation to that affection as pleuritic adhesions do to pleurisy. It is true, it seems possible that such a disease may arise as an idiopathic affection, or that the inflammation may extend from the bronchial tubes to the lobules; but I think that as a rule the lobules are affected as the result of plugging of the bronchial twigs leading to them. The diagnosis of this affection is, at least, quite obscure during life.

Acute circumscribed pneumonia may be diagnosed by signs and symptoms similar to those of the acute lobar form.

Chronic pneumonia, in the form of cirrhosis of the lung, is not very frequently met with. To arrive at anything like a positive diagnosis of this affection requires considerable study and close attention.

If in a person without any evidence of hereditary predisposition to tuberculosis, the following symptoms present themselves, the disease may be suspected, viz., contraction of one side of the chest with most of the signs of solidification, together with cavernous or amphoric respiration and a few coarse rales heard at different points throughout the affected side, occasional hemorrhage, dilatation of the right side of the heart—from pulmonary obstruction—with perhaps regurgitation and general dropsy, shortness of breath, cough, etc.

The diseases with which it is most likely to be confounded are tuberculosis, chronic pleurisy with effusion, and carcinoma. By carefully noting the following points the discrimination may be made with considerable accuracy: In phthisis the emaciation is greater, expectoration more profuse, greater abundance of rales, more evidence of cavities, and lastly, phthisis is a bilateral affection. In pleurisy there is more complete flatness, no hemoptysis, and should the liquid be withdrawn the signs of solidification immediately disappear. Carcinoma of the lung is generally preceded by the same affection in other situations, it progresses more rapidly, the system shows the characteristic cachexia, and there are generally some points at which the respiratory murmur may be heard.

Treatment. — In the treatment of *acute lobar pneumonia*, from the onset, the measures which I, as a rule, regard as indicated are depletion, local applications, sedatives, supporting measures, antipyretics and stimulants.

I make use of only slight general depletion, confine it almost entirely to the first stage, and employ for the purpose, as a rule, a mild and efficient cathartic. I think it answers much the same purpose as blood-letting, and has the additional good effect of leaving the stomach and bowels in a better condition to receive and take up nourishment—an item of great importance in the later stages of the disease.

Local applications I employ from the onset of the disease to the termination. I apply them to the entire chest, generally in the form of hot soothing fomentations, making use of flannel cloths, or better, perhaps, sacks containing bran, wrung out of hot water mixed with a little turpentine; the whole being then enveloped with oiled silk. This, in addition to being soothing and counter-irritant, acts also as *local depletive*, by producing copious perspiration from the part.

Sedatives I use from the commencement, with a view to relieving pain, quieting cough, and producing general tranquility of the entire system. For this purpose I, in ordinary cases, make use of some form of opiate—morphine or Dover's powder—occasionally associating with it aconite, veratrum viride, digitalis or choral hydrate; or, if the patient be a female showing nervous or hysterical manifestations, I use a preparation of valerian with chloral hydrate.

Supporting measures are more particularly indicated as the disease advances to the second and third stages. Under this head I embrace good hygienic surroundings, with plenty of fresh air, tonics, abundance of that kind of food which contains the largest amount of nourishment to the smallest bulk and which is the most palatable; such as eggs and milk, with brandy, beef tea, gruel, etc.

Quinine may be used in large doses with a view to reducing the temperature. Should this measure disorder the stomach sufficiently to interfere with proper alimentation, which it frequently does, I should suspend the remedy.

Alcoholic stimulants may be given with a view to reducing the frequency of the pulse, and constitute a highly essential part of the treatment where the disease is accompanied by great exhaustion, weak and frequent pulse, etc.

In a discussion I listened to on the treatment of this form of pneumonia in the New York Academy of Medicine, by Profs. Flint, Loomis and others, in the year 1874, when the disease proved so fatal in that city, the highest importance was attached to the last two of these indications, viz., *quinine to reduce the temperature*, and *alcoholic stimulants to reduce the frequency of the pulse.*

Complications will require special attention. In this climate the use of quinine, for a time, in antiperiodic doses rarely comes amiss. I do not attach any importance to expectorants or anything to promote resolution.

Acute circumscribed pneumonia will require a similar line of treatment to the above, though, as a rule, the measures may be principally directed to the affection of which the disease is a complication.

With regard to *cirrhosis of the lung* the chief points of interest are involved in the pathology and diagnosis of the affection, and little may be said of the treatment of the disease *per se*, the measures being chiefly directed to symptoms and complications, although much may be accomplished in the way of prolonging life by measures which tend to build up, invigorate and support the system.

Reports of Societies.

Transactions of the North Eastern District Medical Society.

The semi-annual meeting was held at Orion, June 26, 1878.

On motion, O. J. Perkins, M. D., of Romeo, was admitted to membership in accordance with the rules of the society.

Professor Jenks and Dr. Henry O. Walker, of the Detroit Medical College, were present, and were on motion unanimously elected to honorary membership.

Professor Jenks read a paper on "Atresia of the genital passages of women," with a report of twelve cases, for which he was tendered a hearty vote of thanks.

Dr. H. O. Walker then read a paper on "Pott's Disease of the Spine," with a report of quite a number of cases, where the "plaster of paris jacket" had been applied with excellent results. He also illustrated the mode of treatment by an application of the "jacket" before the society.

A unanimous vote of thanks was tendered the doctor for his able, instructive and interesting paper on the subject.

The report of the Secretary being read, a committee, consisting of Drs. Andrews, Fares, Brownell and Elliot, was appointed to draw up a series of resolutions to commemorate the death of our beloved associate and fellow practitioner, Dr. Albert E. Leete, of Rome.

Whereupon the following was submitted and adopted, viz.:

Whereas, We have learned of the death of one of our original members, and one of the oldest members of the profession in this State, viz., Dr. Albert E. Leete, who ever maintained an active interest in the profession of his choice, in its members, and also in this society, always when practicable meeting with us, and participating with interest in its proceedings.

Resolved, Therefore, that in the death of our honored and beloved associate, we have to deplore the loss of one who was justly distinguished as a learned, skillful and accomplished physician, who exemplified an irreproachable life, and the virtues of a good citizen, who, in his social relations was eminently refined, genial and brilliant, and who was also a sincere, devoted and reliable friend.

Resolved, That we tender to the family and relations of the departed one our heartfelt sympathy in the bereavement with which an all-wise and beneficent Providence has seen fit to afflict them.

Resolved, That these resolutions be placed in full upon the records of this society; and also that a copy be furnished to the family of the deceased, and also be published in the *Romeo Observer*, and in the medical journals of this State.

(Signed)

SETH L. ANDREWS, M. D.,
W. G. ELLIOT, M. D.,
WM. BROWNELL, M. D.,
J. B. FARES, M. D.,
Committee.

Drs. Andrews, Jenks, Caulkins, Fares and others, then feelingly paid a warm tribute of praise and respect to the memory of the departed one.

Dr. H. J. Reynolds, of Orion, then read an excellent paper "On Pneumonia; its pathology, prognosis, diagnosis and treatment."

Dr. Caulkins also read a very able and interesting paper on the above subject, and consented to prepare it for publication.

A vote of thanks was tendered to each of the above gentlemen for their valuable papers.

A regular *feu-de-joie* discussion then took place concerning the treatment of pneumonia.

Resolved, That we hold our next regular meeting in the village of Orion, on account of its central location.

Carried.

ALBERT YATES, M. D., *Secretary*.

F. M. WILCOX, M. D., *President*.

Detroit Academy of Medicine.

MAY 28, 1878.

The society met at the usual place, the president, Dr. Connor, in the chair.

Dr. Noyes reported the case of a man who three weeks ago consulted him for failure of sight. There was no injection of the eye, and no pain complained of in any stage of the trouble. Opthalmoscopic examination showed that the vitreous body was undergoing change, and dark filiform bodies were to be seen in it. The eye was darker than its fellow. This was a case of serous irido-choroiditis, but not one for iridectomy, as there was no increase of tension in the eye; and not one for paracentesis, as there was no increase of the ocular fluids. The curious feature in the case was, that there were no subjective symptoms except loss of sight.

The Dr. next exhibited a young lady with posterior synechia, from iritis of two years' duration. In this case the Hutchinson teeth were well marked.

PREVAILING DISEASES.

Dr. Johnson had had quite a number of cases of whooping cough, and asked what the best method of treatment was.

Dr. Carstens thought that quinine alone or in combination with chloride and bromide of potassium diminished the number and severity of the paroxysms.

Dr. Jenks.—The best remedy after quinine and bromide of ammonium is the nitrite of amyl. A little cotton placed in a phial, and a few drops of the amyl dropped on it, allowing the patient to inhale it, is the most convenient method for its use. It seems to cut short the disease, and invariably relieves the paroxysms. In some instances it causes so much disturbance that it cannot be used.

Dr. Andrews spoke highly of the amyl treatment, and in cases that could not take it he used sulph. ether instead. Quinine from its intense bitterness often irritated and was rejected by the stomach; the other alkaloids of cinchona were less objectionable and very useful. This year arsenic had proved very beneficial, in many cutting the disease short in a week. It may be combined with the hypophosphites advantageously. In some cases grindelia combined with sulphate of zinc and belladonna has been palliative.

VERBAL COMMUNICATIONS.

Dr. Shurley reported the case of a child 10 months old, which at first had malarial fever, followed by intestinal trouble, and still later, by meningitis, which caused its death. A peculiar feature in the case was, that it could not retain any medicine on the stomach, except Fowler's solution and bi-carbonate of soda. (Dr. Shurley will give the results of the *post-mortem.*)

Dr. Carstens mentioned a case of supernumerary finger, there being two thumbs on each hand; also a case of fracture of the olecranon process, caused by muscular action.

Dr. Johnson.—Miss Ella F., aged 14, came under my observation, April 13, 1878. She had been a healthy blooming girl previous to the middle of February, when she was taken with intense pain in the pit of the stomach, each paroxysm lasting a few seconds, followed by great rumbling or borborygmi of the bowels, sufficiently loud to be heard in distant parts of the house, this sequence of symptoms recurring at different intervals, on different days, lasting from five to eight minutes. This condition of things continued without intermission from that time until I first saw her. Her physical condition was good;

no fever; bowels somewhat constipated; no vomiting; no bloating; skin natural; pulse normal. She menstruated for the first time in January, and again, and for the last time in February, a week previous to commencement of her present trouble. There was no leucorrheal discharge, and no tenderness over the region of the ovary; no abdominal tenderness. Her lungs and heart were healthy, although her mother and sister died of consumption. The patient was sent to me for treatment by the constant current, under the use of which, and the internal use of pepsine, bismuth, and strychnine, all symptoms ceased for several days, after which it seemed to have no further effect. Early in May vomiting began to be a prominent symptom, always following a paroxysm of pain—explosive in character—large quantities of fluid of fetid odor being discharged, without previous nausea. The appetite entirely disappeared; emaciation progressed rapidly, medicines having but little effect, the patient gradually failing, to die June 4, 1878.

There was only a partial *post-mortem* allowed. The abdomen and contents only superficially examined. The intestines were distended with gas; no adhesion; healthy in appearance. The mesenteric glands enlarged and degenerated; probably tubercular. The liver was very much softened, and yellowish in color. These were all the appearances noted.

The doctor's theory of the disease was, that the pressure of these enlarged glands upon the solar plexus interfered with the proper innervation of the parts.

Dr. Chapoton, to whom a small piece of the liver was sent for microscopical examination, reported that the organ had undergone fatty degeneration. The liver cells were almost wholly replaced by fat cells and granular matter.

Dr. Flinterman reported the following:

Johann Selkowsky, ten years old, a German boy, who in the month of December, 1877, went through a severe illness from pleuro-pneumonia, from which he entirely recovered, was attacked on the 10th day of April, 1878, by a sudden illness early in the morning, at about three o'clock, with severe diarrhea and vomiting, unquestionably indicating the advance of a severe disease. At nine o'clock the same morning the boy became unconscious; a severe fever was setting in. The parents of the patient observed that immediately with the commencing disease an eruption on the skin was visible, and as the condition was getting alarming to them, I was sent for on the 11th day of April, in the morning. The patient was lying in the bed, apparently in a restless sleep; respiration was frequent, equaling 140 to 160; weak; temperature, 40°C. Skin hot, dry, dark red, nearly blue, the most showing of the bluish appearance on the skin of trunk; the extremities had a lighter color of the exanthem; glands of the neck and the lower jaw swelled; tongue light coated, not dry; pharynx perfectly free from diphtheria.

Monday evening—The pulse was 150 to 160; temperature, 37.5, not above the normal. The patient breathed hard and quick, tongue perfectly white from diphtheritis. Submaxillar glands increasing in swelling; mouth can only be opened with great difficulty. The skin of hands and feet cool and markedly pale. The patient is unable to swallow; everything he takes goes through the nose. I consider the case hopeless; do not expect to find the patient living in the morning. The medicine prescribed was: kal. chloride, quinine and tr. ferri mur., wine, brewers' fresh yeast; carbolic acid, mostly to moisten the gangrenous parts. A wet cold cloth round the neck. Pulv. opii, Dover's, with camphor for the night.

No hoarseness, voice clear, no cough; had expected, according to the fever symptoms, which marked the case from the first start, that a diphtheritic inflammation would complicate or accompany the disease; but I was only able to see a moderately congested condition of the mucous membrane covering the tonsils, with soft palate and pharynx. I visited the patient twice a day, diarrhea lasting till Friday, the 12th day of April. During the nights patient was in a great degree restless, dreaming, talking, and throwing himself around. Temperature 26; remained in the same condition. Examination of heart and lungs did not reveal affection of these organs.

Urine and stools passed away without the knowledge of the patient.

Saturday, the 13th day of April, did not give any change in the condition of the patient. I saw the patient this day in the morning and in the night; examined him carefully; he took during this time muriatic acid in a slimy vehicle.

Sunday morning at 10 o'clock, the 14th day of April, I noticed when entering the room, that a change to a much worse condition had taken place; the lips which were before always moist, were covered with a dry crust, bloody looking, the gums covered with a white-looking matter, tongue yellow, with diphtheritic inflamed spots; the pharynx, tonsils and uvula diphtheritically affected; other portions ex ore. Temperature and pulse not changed—pulse about 120, 140, 160; temperature 39° to 40°. Skin unaltered, diarrhea and vomiting having stopped. During the night the same restlessness. But another bad symptom made the situation more critical—the skin surrounding the orificium and fissura ani was yellow white; the same appearance was on a circumscribed spot of the skin behind the left trochanter major.

In the evening, when I examined those parts again they looked dark and nearly black, like decubitus.

Monday morning, the 15th day of April, they had the appearance of perfect gangrena sicca. Monday night, the spot behind the trochanter had already formed to an ulcer; on the skin of both arms covering the olecranon the same process as in the parts mentioned.

With more than common frankness Dr. Flinterman reported the following:

Mrs. Runkel, 43 years of age, has been sick since the month of June, 1875, at which time her monthly periods ceased; feeling weaker from day to day, having occasionally a slight chill. In the month of October she had suddenly a heavy hemorrhage from the womb, the blood passing away freely and of light color. This flowing lasted only for one day, but caused a severe weakness, and an œdematous swelling of the legs and the labia majora vulvæ. Since that time, appetite left her entirely, weakness increased, chills and fever coming oftener;

but she did not apply for medical help. I saw the patient for the first time the second of January, 1876. An examination showed a tumor in the median line of the abdomen, coming up, as it seems to me, out of the pelvis; is not very solid, smooth sûrface, showing fluctuation; the abdominal walls covering the tumor not altered in any respect. No fluid in the abdominal cavity, tenderness of the left iliac region, where an œdema of the skin is to be seen; labial majora swelled, anasarca of the lower extremities. Vaginal examination did not reveal any connection of the tumor with the uterus. The patient looked pale, had a severe pain in the lower part of the abdomen, the most in the left iliac region; weakness of the stomach and vomiting, diarrhea—all the symptoms going away by an application of a blister in the most suitable place of the abdomen; opium internally.

Auscultation and percussion of lungs revealed a chronic bronchitis, heart normal, liver not enlarged. I did not examine the condition of the milt at the time. Considering the tumor an ovarian one, very likely of a malignant character, judging from the appearance of the patient, the rapid growth of the tumor, as she can trace back the first beginning of it only since the end of October, I ordered medicine of a strengthening character, giving at the same time good food, wine, etc. Patient seemed to recover and to gain, but on the seventh day of January she had such a bleeding from the nose and mouth that it run out in a stream. I applied the usual remedies, but did not resort to tamponing, as the patient refused to be troubled, as she said, by such a method of treatment. Bleeding stopped and commenced again, making her, being already in a fearfully weak state, weaker and weaker. Tincture of iron had a good effect in stopping the bleeding; ergot was not well tolerated by the stomach. But the most striking feature in the whole case was that the tumor in the abdomen was now diminished in size considerably, not showing any more the smooth surface, but knots, mostly of solid consistency; fluctuation disappeared, the swelling of legs and of labia majora gone. The patient looked pale; yellow, like wax.

An examination of the milt at this time proved an enlargement of that organ, very tender on pressure, so that I commenced to look upon the whole case as a very interesting and complicated one. As the patient will very likely die from the affection, I hope I can prove my diagnosis by a *post-mortem* examination.

During her whole sickness I have not omitted to examine the urine several times, but never found this anything out of the way. As I have to state before you my diagnosis, I declare the whole thing to be cancer of the ovary of the left side, and at the same time a serious alteration of the blood mixtures, similar to leucæmia.

On the 15th day of January, 1876, there was a slight bleeding from the womb, the tumor in the abdomen commenced to swell again; the tuberous appearance of it was gone; fluctuation again discernible, pain in the whole abdomen, feeling of sickness in the stomach, occasional vomiting. The patient feels very nervous and depressed; pulse 100 to 120. Respiration easy yet. Appetite entirely gone; no digestion of food; bowels constipated; the weakness is increasing from day to day. The enlargement of the spleen in the same condition as on the days before, the appearance of the patient indicating in every respect serious alteration of the blood mixtures. Everything is done to keep up strength by good food and medicine, but in vain, as everything goes against the nature of the patient: iron, wine, mur. quinia, saturation of carbonate of iodine, acid. with tart., opiates, everything fails to have the wonted effect. How did the case end? A multitude of hydatiform vesicles were expelled from the womb, in a detached state or in clusters of ten or more together, the whole mass collected in a basin having the appearance of gelatine. The woman recovered. *Errore humanum est.*

Dr. Gilbert reported the case of a lady who was confined some time in February. She got along well, except a small painless abscess formed in the left breast, until about six weeks after, when she began to complain of pain in the left side. There was no cough, and no fever. This continued for a week and a half, or two weeks. From the pallor of face and general languor present, I judged it neuralgic in character, and simply prescribed anti-neuralgic remedies. About the 7th of May I had occasion to make a physical examination of the chest, and discovered marked dullness over the whole anterior surface of the left lung and the upper posterior portion of the same lung, reaching down to lower border of scapula. There was bronchial breathing; no crepitus, or other rales present. My attention was called to this from the fact that the slightest exertion caused embarrassed respiration. I at once sent her to bed, and enjoined perfect rest. My treatment consisted all through of iodide of potassium and muriate of ammonium every three hours, and quinine three times a day, with blisters over left lung. After a few days the symptoms began to abate, and improvement was continuous. As there was complete absence of cough and expectoration, I believe the effused products were absorbed, and from absence of all inflammatory symptoms, and from the extent of the dullness, I think inflammation and pleurisy might be excluded, and that the most rational diagnosis to be arrived at is œdema of the lung.

Dr. Spalding reported a case of chorea in a lady, following fright. The first attack came on in the night, marked by pain and muscular movements of the left side. Bromide of potassium controlled the movements. The next day she went down town, and at night the attack recurred. Since then, unless under the influence of the bromide, the irregular movements have continued.

Dr. Connor briefly reported an interesting case which he had lately seen in consultation with Dr. McGraw. The patient was a man about forty-five years old. Until five years ago, he had been perfectly well. At that time he had a full, long beard, and thick brown hair. Shortly afterwards, without any cause apparent to him, or any deterioration of his general health, little brown spots began to appear on his fingers and toes. At first these resembled the spots on a brook trout. Gradually they extended towards the body, and increased in size as they extended, until at the present time, almost the entire skin of the body is covered with a dense brown pigment. Along with this derangement of the cutaneous pigment, marked changes took place in the hair and nails. From the general surface of the body the hairs disappeared almost entirely, only here and there is there now a trace of a minute sickly hair. The hair on the head gradually changed in character—much of it fell out, not to be replaced—the rest took on a short, downy growth, very like that which is so characteristic of the presence of parasites in and about the hair bulbs. A similar, and even more marked change took place in his beard. In general, it may be said that the growth of hair and whiskers had entirely changed in character, so as to leave them in a dwarfed and sickly state. The nails had almost ceased to grow on the fingers and toes. The conjunctiva covering part of the cornea had become involved in the general cutaneous disease, and rendered quite opaque, so as to materially interfere with vision.

Lastly, his special trouble was a stoppage of both nostrils. For this he had consulted Dr. McGraw in the hope that a surgical operation might relieve his distress. A careful examination, however, only revealed a fracture and displacement of the septum nasi to the left, which had occurred over twenty years previous, and a swollen state of the schneiderian membrane. As I regarded the corneal trouble as a part of the general cutaneous disorder, so Dr. McGraw decided that the nasal trouble had a similar origin. Of the man's general condition it may be said that he seems entirely well able to pursue his business with ordinary energy. All his other bodily functions seemed to be entirely physiological. With our diagnosis of the case, the only treatment for either eye or nose was that directed towards the restoration of the proper functions of the skin, or more exactly the proper functions of those organs which cause such changes in the coloring matters of the body, as to permit of their complete elimination by the proper channels.

Dr. Brown-Sequard has been elected to the Chair of Physiology in the Faculty of the College of France, recently filled by the late Claude Bernard.

Michigan State Board of Health.

The regular quarterly meeting of this body occurred July 9, 1878, at Lansing, all the members being present, as follows: Dr. R. C. Kedzie, President; Dr. H. O. Hitchcock, Dr. H. F. Lyster, Hon. Le Roy Parker, Rev. D. C. Jacokes and Henry B. Baker, Secretary.

The subject of a text-book on hygiene, for common schools, was discussed. No member of the board had seen a book suitable for such use, and it was thought very desirable that one be prepared.

Dr. Hitchcock then offered the following resolutions, which were adopted:

Resolved, that this board respectfully request the Board of Regents of the University of Michigan and the Trustees of the Detroit Medical College to establish in their respective institutions, at the earliest practicable moment, full chairs of public hygiene, and fill the same with thoroughly competent professors.

Resolved, that this board respectfully request the controlling boards of all the collegiate institutions, as well as the high schools of the state, to see that a course of instruction in public hygiene be given in each of their several institutions.

Dr. Lyster mentioned that in the interests of public health he had delivered a course of lectures before the medical class, at the University of Michigan, during the past six months. He presented a syllabus of each lecture delivered.

Dr. Kedzie presented some results of his investigations on the subject of lead poisoning by the use of tinned ware and other vessels containing lead.

He said that it is well known that there are substances actively poisonous when taken in large doses, that when taken in small but repeated doses often produce effects so obscure that they may be mistaken for the symptoms of some chronic disease. Lead, arsenic, antimony, and copper are examples. The chronic poisoning, which may be caused by minute doses of any of these metals, and the possibility of mistaking such metallic poisoning for some disease of a different nature, should warn us against their use, or make us careful and guarded while using them. Vessels in daily use for preparation or serving of food are especially liable to affect the physical condition if they contain any material which will insidiously sap the foundations of health and strength.

Culinary vessels which are cheap, durable and convenient, and without injurious influences on the health, bear an important relation to the comfort and well being of the people. Of all cheap metals for such use tin fulfills these conditions better than any other. It is comparatively cheap, resists oxidation by exposure to air and water, has a white color, is not readily dissolved, except by strong mineral acids, and the only salt of tin which is actively poisonous is the chloride, which will never be formed in the domestic use of tin vessels. The readiness with which iron surfaces may be coated over with it contributes to its valuable uses.

Unfortunately, while tin is comparatively cheap and safe, lead is cheaper and very dangerous. Yet the two metals readily unite, forming an alloy which may be used in place of tin, but which will generally oxidize and be dissolved by acids more readily than either metal of which it is composed. The danger of poisoning by the use of such vessels is very great. The attention of the State Board of Health has been called to this subject by a letter from Dr. Dorsch of Monroe, who writes that he has seen cases of *paralysis agitans* which had been taken for chorea, although other symptoms of lead poisoning were present, and investigation showed in all cases that cooking and eating with tin spoons or in earthern and iron vessels with a coat of lead were the cause. The same is true with milk vessels. The acid dissolves the lead salts, and children are poisoned, dying by tubercles of the brain, meningitis, fits, and paralytic affections.

Grown persons do not escape, although resisting longer. A similar danger arises from tea and coffee pots of earthern ware or composition metal, from tin sieves and tunnels, and almost all cooking utensils used by the poor. They are about equally as dangerous as the adulteration of food and spices, so common all over the country.

The danger of lead poisoning is a matter of great importance, because so large a proportion of our population employ tinned vessels for culinary and table use. The alloy of tin and lead oxidizes much more readily than pure tin, and the oxide of lead is very soluble in acetic acid or vinegar, or lactic acid, forming sugar of lead. It also forms salts with malic and citric acids, which are contained in apples, cherries, gooseberries, currants, or any acid fruits. When cooked in vessels containing lead or even placed in them for some time they are liable to take it up and become very injurious thereby, because all salts of lead are poisonous. In this a large portion of our daily food may be a vehicle of poison if prepared or contained in vessels containing a sensible amount; and this danger is greater because the compounds of lead are cumulative in their influence. A person may not be poisoned by one or two small doses, but minute doses taken for a long time will break the health and even destroy life.

The docter said that of a large number of specimens of tin plate, tinned iron and other culinary articles examined by him, he found in almost every instance an alloy with lead, and it was often present in large quantities. It is an astonishing fact that a large proportion of the tinned wares in the market are unfit for use because of the large quantity of lead with which the tin is alloyed.

Test for Lead.— Place a drop of strong nitric acid on the tinned surface and rub it over a space as large as a dime. Warm it very gently till dry, and then drop two drops of a solution of iodide of potassium on this spot. The bright yellow iodide of lead will form on the spot if the tin contains lead. This test can be rapidly applied and the results are decisive. The doctor was informed that a peculiar kind of tin plate, the tinning composed mostly if not entirely of lead, was coming into general use for roofing, eave troughs, and water pipes. The lead thus exposed would be in conditions favorable for oxidation, and a quantity of oxide and carbonate of lead would be washed away in the rain water and deposited in the cistern with every storm. Susceptible persons may be poisoned by washing in such lead-charged water, and all persons drinking it even after it has been filtered will be in danger of chronic lead poisoning. Earthen vessels are usually glazed to overcome their porosity. In many cases this glazing consists of fusible silicates of the alkalies, and alkaline earths. These have no injurious influence on the health. Oxide of lead, when added to the alkaline silicates, borates, etc., makes a very fusible and closely adhering glazing; and is sometimes used, but its use is very dangerous, especially if the vessel contains acid substances. The glazing decomposes and lead salts from it either dissolve or are mechanically suspended in the contents of the jar, and there is great danger of chronic lead poisoning. This danger is unfortunately very common.

Enameled Iron Vessels.—Within a short time an enamel has been successfully applied to vessels made of iron plate, the enamel or glazing taking the place of tin coating on tin plate. As the vessels are coming into general use it is a matter of public interest to know what would be their influence on public health. He said that a culinary vessel to be safe must be impermeable by water and grease. Metals, especially where vessels are made without seams or joints, such as pressed tinware, glass, and many kinds of porcelain, are admirable in this respect. Glazed crockery, after the glazing is fissured, is very poor in this respect. If the new enameled ware shall prove satisfactory it will be an important acquisition. At the present time the most hopeful outlook for good, safe and cheap culinary vessels lies in the direction of some fixed unabsorbent enamel for pressed iron ware which will maintain an unbroken surface under all conditions of domestic use.

Another indispensable condition for a safe culinary vessel is that it shall not contain any poisonous material by which the food cooked or contained in it shall be injuriously affected.

The specimens of granite ware which he had examined failed to reveal any poisonous or injurious substance. He regarded it as a safe material to use, but feared its power to resist the tendency to crack after it had been frequently heated. The marbleized iron ware presented very different results. The enamel was found to contain a large amount of lead, and even traces of arsenic were obtained from the enamel by the use of Marsh's apparatus. In a quart basin of this marbleized iron ware he placed eight ounces of water containing five per cent of nitric acid, heated it boiling hot, and kept the whole in a warm place twenty-four hours, then evaporated the dilute acid to dryness, dissolved the residue in water, filtered, and from the filtrate precipitated the lead, obtaining in this way what was equivalent to twenty-three grains of lead. In a similar basin of marbleized iron ware eight ounces of vinegar (free from lead) were placed and kept in a warm place twenty-four hours, and then treated in the same manner as the dilute acid. This resulted in obtaining what was equivalent to seven grains of lead. On powdering some of the enamel and heating it with concentrated acids, very distinct traces of arsenic were obtained. This was probably not present by design, but accidentally from being contained in some of the substances used in making the enamel. A culinary vessel which contains so much lead, and in such a state of feeble combination that eight ounces of ordinary cider vinegar can, in twenty-four hours, dissolve from a quart basin what is equivalent to seven grains of metallic lead, must be a very unsafe vessel for general use.

The subject of sanitary conventions was considered, and after some discussion in regard to the kind of subjects to be treated and their mode of treatment, it was voted to hold such a convention at Coldwater, Mich., during the coming winter, being invited to do so by J. H. Beach, M. D., of that city. The secretary was directed to make the necessary preparations.

Invitations were also received to hold conventions at Pontiac and Detroit, from Rev. D. C. Jacokes and Dr. Lyster, who on behalf of the citizens of their respective cities, promised active efforts for the success of such meetings.

One interesting feature of these meetings is expected to be the exhibition of all sorts of sanitary appliances, a kind of sanitary fair where all interested can exhibit or examine articles designed to meet the wants of the people in their efforts for public and private health.

Dr. Hitchcock having attended the meeting of the American Medical Association at Buffalo, at the request of the board, gave a written report of the proceedings of the public health section of that body. The proceedings of the American Social Science Association, so far as they related to subjects connected with the public health, were reported by Dr. Kedzie.

On the board being informed, by the secretary, of the resignation of the Rev. C. H. Brigham, on account of continued ill health, a preamble and resolutions were adopted expressing sympathy with him, and regrets at losing his services on the board.

The secretary presented a communication on typhoid fever from George Chapman, M. D., of Hudson, which will appear in the annual report for 1878.

An account of an outbreak of scarlet fever at Michigamme, Marquette Co., and of the energetic and apparently effective means employed for its restriction, received from J. R. Curley, Clerk of Michigamme Township, was presented.

A communication from George Voorhees, M. D., of South Bend, Ind., giving an account of the fatal burning of a young lady, in that city, by the Rose burning fluid, was read. In that connection Dr. Kedzie called the attention of the board to the fact that the Ohio Legislature had followed the example of Michigan, having passed a law for the inspection of illuminating oils, similar to, though not quite as good as the one in Michigan secured by the efforts of this board.

Communications from the Michigan State inspector of illuminating oils were read, giving an account of the burning to death of an old lady in Bedford Township, Monroe Co., from the breaking of a kerosene lamp probably filled with Ohio oil below our standard, and also another giving an account of the explosion of a lamp at East Saginaw, caused by the faulty construction of the wick tube.

The secretary presented a report of the work done in his office during the preceding quarter. Besides the regular work of preparation of manuscript for the reports, compilation of reports of diseases, distribution of postal blanks for weekly reports of diseases, ordinary correspondence, etc., a circular (28) had been prepared and sent to all health officers in Michigan (1,222 in all), giving them general suggestions in regard to their duties, and the obligations of local boards of health, as guardians of the public health.

A large number of copies of the sixth registration report compiled by the secretary, had been distributed to the regular correspondents of the board, to the sanitary journals received as exchanges, and to prominent sanitarians.

After the usual auditing of bills and accounts the board adjourned.

The next regular meeting will be held October 8, 1878.

Correspondence.

Reply to Dr. Hutton.

HOWELL, July 11, 1878.

Editors Detroit Lancet:

GENTLEMEN—Having noticed an article in the June number of the LANCET, entitled "A Question of Ethics," which, in my mind, was a misrepresentation of the facts in the case, I desire to make a statement in vindication of Dr. Beebe.

In the first place, I did not see any reason or call for an explanation from Dr. Hutton, as he simply performed an official duty in giving the certificate that charges had been preferred, and were in his hands, and said certificate was written by himself, and not by Dr. Beebe, as might be inferred from the article mentioned.

Dr. H. admits in his article that Dr. Beebe simply urged that he had a right to the official statement, that said charges had been placed in his hands, which fact every fair-minded person will admit. It would seem that Dr. H. was much too anxious to avoid offense, especially upon the one side.

I cannot see where there was anything due Dr. Wells, as he was not a member of the State Medical Society, and said society had no jurisdiction in the case, and consequently was not interested in the matter, any further than to require that an applicant should be in good standing in the profession; and their decision was that Dr. Wells must wait until he cleared the matter up in his local society.

It would seem as though Dr. Hutton had prejudged the case, for if Dr. Beebe had good grounds for charges, Dr. Hutton's sympathies should have been with *him*, especially as I and other members of the profession have heard Dr. H. say repeatedly within the last two years, that charges ought to be preferred against Dr. Wells for unprofessional conduct. Instead of Dr. Beebe holding those charges from December 19th, 1877, until the meeting of the State Society, May 15th and 16th, 1878, I wrote them *myself*, and told Dr. Hutton to notify Dr. Wells, that unless he observed the code of ethics more strictly, I should deposit them with the secretary (Dr. Hutton).

At the time of the meeting of the State Medical Society, Dr. Beebe was the only member of the Livingston Medical Association, who was a member of the State Medical Society, and consequently the only person from this locality who could enter a protest against Dr. Wells becoming a member of the State Medical Society. And I understand Dr. Beebe acted upon the suggestion of the chairman of the committee on admissions to the State Medical Society, in requesting the certificate heretofore mentioned, of Dr. Hutton as secretary of the local society of which Dr. Wells is a member. I thought, and others thought, that Dr. Wells should clear up his professional character in the county society, before being allowed to become a member of the State Medical Society. Consequently I feel it my duty to Dr. Beebe and to the members of the State Medical Society, of which he is a member, to make this statement. Respectfully submitted,

C. G. CRUICKSHANK, M. D.

Both sides have now been heard, and so far as the LANCET is concerned, the matter is ended.—[EDS.]

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

HYPOSULPHITE OF SODIUM IN MEDICINE.—T. B. Greenly, M. D. (*Southern Medical Record*, May, 1878), uses hyposulphite of sodium in puerpural fever, in conjunction with quinine and opium, in typhoid fever, in typho-malarial fever more particularly; also, in intermittent fevers, of which he thinks he can control at least fifty per cent of the cases with this alone. The doctor claims that this drug is antiperiodic, antipyretic and antiseptic, and that he is not riding a hobby.

ORIGIN OF SYPHILIS.—Joseph Jones, M. D. (*New Orleans Medical and Surgical Journal*, June, 1878), concludes from his very numerous and extended examinations of the mounds of the mound-builders in the valleys of the Cumberland and Mississippi rivers, that syphilis existed among the aboriginal inhabitants of America long before Europeans set foot on American soil, and that this disease was carried to Europe by Columbus on his first return voyage.

HYDROPHOBIA CURED !—M. Hermance, M. D. (in the *Physio-Medical Journal*, for May, 1878), reports what he calls a case of hydrophobia cured by the physio-medical treatment. His treatment consisted in giving the patient a vapor bath to induce perspiration. After a two hours' sweat, the doctor began the exhibition of fluid extracts of lobelia and scutellaria in equal parts, in teaspoonful doses, repeated every fifteen minutes, until about four ounces of the mixture had been given. The patient meantime was put into bed and wiped dry of the perspiration. The patient vomited at intervals for about six hours; next day the spasm was nearly gone. At the morning visit the lobelia and scutellaria were continued in divided doses for twenty-four hours. At the expiration of the twenty-four hours, the patient had another spasm, when he got an ounce each of fluid extract of lobelia and scutellaria. This last dose seems to have done the work, for the patient is reported to have made a rapid recovery. This bout of physio-medical treatment with hydrophobia occurred April 9th, 1877, and the man was reported well March 1st, 1878.

TREATMENT OF CHRONIC GASTRIC CATARRH.—William B. Neftel, M. D. (*New York Medical Record*, June 8, 1878), treats chronic gastric catarrh by internal medication to overcome the fermenting condition, and by the induced current to cause contraction of the dilated stomach. The doctor uses strong chlorine water to prevent the formation of the fatty acids during the digestive process; gives a variety of food rather than confine the diet to a starvation limit; treats the anæmia with "iron by hydrogen." After the signs of fermentation are abated, hydrochloric acid is substituted for the chlorine, and the secretion of the gastric juice is stimulated by small doses of rhubarb or by some alkali.

The chlorine water is given every two hours at first, so as to effectually preclude fermentation.

Salicylic acid may substitute the chlorine as an anti-fermentative.

HYDROPHOBIA.—The *New York Medical Record* for May 25th, 1878, discusses editorially the mad dog question, and sums up the testimony that has been adduced to prove the questions:

1st. "Can the bite of a healthy dog produce hydrophobia in the human being?"

2d. "Is rabies generated in the dog '*de novo*,' in consequence of any circumstances with which he may be surrounded?"

The first question is answered decidedly in the negative.

The second is not considered as fully proved or disproved, but is as yet held *sub judice*.

The autopsies made heretofore on subjects that have died from hydrophobia prove nothing, for the same, or at least similar conditions are found in other diseases, especially in progressive paralysis and chorea.

Chemical and microscopical examination of the blood would seem to hold out better chances of discovering important facts than the examination of the central nervous system.

The chemical and microscopical examination of the saliva of the rabid animal seems not to have been attempted. Possibly something may be found there which will unlock the mystery.

There is nothing to suggest in the way of treatment. Every case of true hydrophobia is necessarily fatal.

Prophylaxis is a more encouraging field. The following measures appear to be entirely practical:

1st. All vagrant dogs should be killed.

2d. Dogs should not be muzzled except in times when the disease is epidemic.

3d. They should be placed under good hygienic conditions as to food, drink, cleanliness, etc.

4th. Reduce the number of useless dogs by imposing a heavy tax on all dogs.

5th. Compel the owner of a suspicious animal, or one that acts strangely, to report the same to the police. A neglect of such report should entail criminal punishment.

Therapeutics.

HYOSCYAMINE—ITS ACTION AND USE.—H. Clifford Gill, M. R. C. S. (*Practitioner*, Feb., 1878), gives the following conclusions which he has arrived at from comparison of the results obtained in the cases where he has used the drug:

1st. That a noisy, violent, dangerous and troublesome lunatic can easily and certainly be rendered calm for some hours, and probably—though not certainly—unless the dose be increased, be sent into a profound sleep, lasting many hours.

2d. That he has never seen any ill consequences follow the administration of hyoscyamine.

3d. That the drug is most useful in acute delirious mania, and in the various forms of remittent mania.

4th. Little or no good is attained in the condition of melancholia where there is much depression, with brain irritation.

The writer cautions that the drug should not be given to patients with degenerate arteries, or chronic cardiac diseases, or to very old people. The usual dose is three-eighths to three-fourths of a grain freely diluted.

The present cost of the drug is 3s. 6d. sterling per grain.

Is Quinine an Oxytocic?—Meriwether Lewis, A. M., M. D. (*Virginia Medical Monthly*, Feb., 1878), has again brought forward this question, and in the course of his examination of the subject *pro* and *con*, has exhausted all, or at least nearly all, of the literature on the subject. He quotes from a large number of authorities—men of note—who have given the drug in doses varying from five to eighty grains, and have failed to see any effect on the uterus, such as would be expected if quinine is capable of producing abortion, miscarriage, or labor, at term. The doctor's conclusions are:

1. Quinine is not an oxytocic in any true sense of the word.
2. The action of malaria to produce the effects which have been attributed to quinine, is unmistakable.
3. To its property as a general stimulant, and to that alone is due its effect on the uterus in normal parturition.

Surgery.

Rapid Lithotrity.—T. B. Curtis, M. D. (*Boston Medical and Surgical Journal*, May 2d, 1878), has an article under the above caption. The operation which has this name was invented by Dr. H. J. Bigelow, and consists in rapidly crushing the stone in the bladder with the lithotrite, and evacuating the detritus through a large catheter by means of a modified Clover's apparatus. The operation is repeated again and again at the same sitting until the stone is completely crushed and thoroughly evacuated. The usual precaution of a warm room, and all other needful precautions, are carefully taken. When the stone is all removed the patient is put to bed, a hot mustard and linseed poultice applied over the bladder, and a suppository of one-third grain of muriate of morphia introduced into the rectum.

The patient is relieved of his urine by a rubber catheter, and after one or two days the bladder is washed out with a solution of borax, glycerine and water.

This plan avoids the irritation of the sharp angles of the fragments of the stone on the mucous membrane of the bladder. It also gives the surgeon three methods from which to choose for any given case, and renders it possible to remove a stone at a single sitting that would have required several sittings by the old practice of lithotrity.

Reaction is good in the patients subjected to this operation, and the febrile movement slight.

NEW TREATMENT FOR SPINAL DISEASE.—Meigs Case, M. D. (*Cincinnati Lancet and Observer*, May, 1878), describes an apparatus of his own for the treatment of spinal diseases. It consists of a four-wheeled machine, with two upright spars and a cross-bar, from which depends a steel spring of suitable strength and a suitable head-stall for making extension on the head and neck of the patient. The height of the suspending apparatus is regulated by a screw, and can be raised as the patient comes to tolerate its use and his height increases.

In dorsal curvature the doctor adds a waist suspension, so arranged as to prevent any lifting of the shoulders and also allow free movement.

With this apparatus the patient can turn around or go backward or forward; he can sit on an adjustable seat, or stand at will. He can also use arms and feet in self-propulsion, by suitable additions to the apparatus. This plan seems to provide for the needful exercise that these cases demand. The circulation is improved by this suspension and motion. The overstrained tendons are rested, and are thus enabled to act. In some cases improved respiration is attributed to the removal of pressure from the pneumogastric outlets. The most delicate patients are enabled to take exercise without injury; in fact, helpless cripples become amateur gymnasts.

The doctor's address is Oneonta, New York.

TREATMENT OF STRICTURE OF THE URETHRA.—S. W. Grass, M. D. (*New York Medical Record*, June 15th, 1878), has a paper in which he advocates internal urethrotomy, in preference to divulsion for stricture of the urethra. He also figures a new dilator, which obviates interference with the meatus urinarius. It consists of a No. 16 steel sound, the terminal two-thirds of which is split into halves, but connected at the point, and arranged so as to be dilated laterally by a flattened cone attached to a rod that passes through the middle of the sound and is operated by a wheel in the proximal end of the handle. The dilator when expanded assumes a spindle shape. The breadth to which this dilator may be expanded is registered on the handle by an index. This dilator is used in place of the steel sounds after internal urethrotomy.

TREATMENT OF LACERATED AND CONTUSED WOUNDS BY SUBMERSION IN HOT WATER.—R. U. Chapman, M. D. (*Toledo Medical and Surgical Journal*, April, 1878), treats lacerated and contused wounds by submersion in hot water at a temperature of 106 deg. Fahr., as he claims, with comfort to his patients and success in his practice. As the healing progresses, the temperature of the water may be reduced to 90 deg. Fahr.

THE PROVINCE OF LITHOTRITY.—W. Hutson Ford, M. D. (*St. Louis Medical and Surgical Journal*, May, 1878), concludes that the province of lithotrity is to deal with stones of moderate size and hardness which may be found in adults of comparatively good health. Where extensive renal disease exists lithotrity has no chance, neither has lithotomy. Boys before the age of puberty should not be subjected to the lithotrite.

TREATMENT OF CANCER OF THE BREAST.—Z. H. Evans, M. D. (*Toledo Medical and Surgical Journal*, April, 1878), treats cancer of the breast by the knife, supplemented by the free use of super-sulphate of zinc (Tanner), to accomplish two indications: First, to arrest hemorrhage; and, second, to destroy any of the cancer cells that may remain after the knife. He then has an open wound to treat, which is allowed to contract and cicatrize.

Pathology.

CEREBRAL LOCALIZATION.—Drs. Le Double and Viollet, of Tours (*La Tribune Médicale—Cincinnati Medical News*, Feb., 1878), have reported a case where, after amputation of right thigh, thirty-one years previously, death occurred from tubercular pleurisy, and an autopsy having been made, the fold passing from the second left anterior frontal convolution to the anterior marginal one was found very perceptibly atrophied. On measurement, this fold was only three and one-half millimeters thick, while the opposite fold was seven millimeters in thickness.

The two halves of the encephalon had the same weight. The spinal cord had its proper consistence, but was decreased in volume, especially in the lumbar region, where there was no appreciable enlargement.

Two other cases are reported, where the motor tract of the brain has been found atrophied after amputation, from the *Bulletine de la Société Anatomique*, Nov. 10, 1876—one in which there was atrophy of the superior part of the ascending convolution of the paracental lobule of the right side in an individual, whose left arm was amputated five years before, and one in which there was atrophy of a cerebral lobe and corresponding marginal convolutions in a man whose thigh was amputated thirty years ago.

Physiology.

THE ACTION OF HEAT AND COLD UPON THE BODY (*L' Union Médicale*, May 30, 1878).—Dr. P. Delmas, of Bordeaux, lately forwarded to the Academy of Medicine of Paris, the *résumé* of his new work upon this subject. The following conclusions are deduced:

1. During the administration of a cold douche, made at a temperature of 50 to 70 degrees Fahr., and lasting from half a minute to five minutes, whether it has been preceded or not by the use of heat, the central temperature of the body, and that of the intermediary zone, are but little, if at all lowered.

2. If the person, during several hours following the administration of the cold water, remains in a state of perfect repose, and aids in no way the supposed reactionary movement admitted by all authors, the central temperature, and that of the intermediary zone, falls but slightly, or rises, and even passes beyond that existing before the douche, although the patient experiences but a feeling of moderate warmth or coolness, and even chills, the action of the heart is quickened, and the arterial tension remains high.

3. After the administration of a cold douche, the exercise taken to bring about a reactionary movement, or at least to aid its spontaneous development, has for its *true* physiological effect, a persistent fall of temperature, a less rapidity of the pulse, and a diminution of arterial tension, or, in other words, exactly the reverse of what has been admitted up to this time.

4. Under the influence of a cold douche, the maximum and minimum of the heart's rapidity correspond to the maximum and minimum of arterial tension; consequently they are in a relation opposite to that of the normal physiological state.

5. After the administration of a cold douche, the patient is really cooled, and his temperature, or that of the central intermediary zone falls precisely at the moment when he experiences the sensation of warmth, and on the contrary, rises or remains the same, when he is chilled.

HEAD DEVELOPMENT AMONG PHYSICIANS.—(*Lyon Médicale*, April 21, 1878.)—MM. Cliquet and Lacassagne lately presented to the Society of Public Medicine and Hygiene, a paper concerning the influence of intellectual work upon the form and development of the head. Their researches are all the more interesting from the fact that their measurements include those of many physicians, and as the results are so flattering to the profession, we shall quote them.

The experiments were made by means of the *conformature* upon 190 doctors of Val-de-Grace, 133 soldiers, who could read and write, 90 soldiers, who could not, and 91 prisoners. The diameters measured were the longitudinal, the anterior and posterior.

The average measurements obtained were:

	M.D.	Educated Soldiers.	Illiterate.	Prsnrs.
Long Diam.	85.29	81.97	79.13	81.10
Anter. "	48.91	43.65	42.35	41.12
Poster. "	52.58	49.66	50.27	49.90

The differences in favor of the doctors over the uneducated are: long diameter, 4.50 cm.; anterior, 6.37 cm.; posterior, 2.82 cm. The frontal development of the doctors measured 6.37 cm. more than that of the illiterate. Moreover, the asymetric of the two halves, which is constant, is not the same in the two classes. Among the educated, the left frontal region is the most developed; among the illiterate, it is the right occipital region (passional instincts).

The authors' conclusions are:

1. The head attains its greatest development in those who exercise their brains.

2. The frontal region is relatively more developed than the occipital in educated persons. If the difference between the two regions is in favor of the latter, this difference is not large, while among the uneducated it is considerable.

J. W. S. Arnold, M. D., Prof. of Physiology, etc., Medical Department University of the City of New York (*New York Medical Journal*, April, 1878), has instituted a series of experiments on animals, to prove the muscular element in the first sound of the heart. By ingenious devices, after the plan of the sphygmograph, he has obtained tracings of the heart during the contractions, and has also measured the time of the contractions.

His experiments further confirm those already made by previous observers, and he concludes that there *does* exist a muscular element in the first sound of the heart.

Formation of Pepsin Before and After Death.—(*Lyon Médicale*, April 14, 1877.)—Schiff says that the amount of pepsin in the stomach of vigorous individuals (he experimented upon dogs) increases considerably after their death, even for two or three weeks, if that organ is in infusion in a sufficiently large amount of acidulated water. Pepsin is the product of decomposition, or chemical modification of another substance, *propepsin*, which is always present in the stomachal glands, a change which is brought about by *peptogens* of the blood during life, and by water and a dilute acid after death.

Diseases of the Skin.

SEBORRHŒA.—Arthur Van Harlingen, M. D. (*Archives of Dermatology*, April, 1878), concludes that the sebaceous secretion is derived from fatty metamorphosis of the enchyma cells of the sebaceous glands. These cells are homologous with those of the stratum mucosum of the skin. They have nothing in common with the cells of the horny layer.

Seborrhœa is a disease of the sebaceous glands, characterized by the pouring out of an increased quantity of sebum, more or less altered in chemical and physical composition. In comedo and seborrhœa sicca, properly so called, the secretion is condensed to a fatty consistency, while in seborrhœa oleosa it remains in an oily state. In each of these affections, however, microscopic examination shows epithelial cells in a state of more or less complete fatty degeneration and breaking down into granular debris. Horny cells are only formed adventitiously.

Certain forms of disease heretofore commonly classed as seborrhœa sicca, should properly be removed from the category of diseases of the sebaceous glands, since the pathological product in these cases is not sebum but epithelium, from the horny layer of the skin. Any sebum which may be present is a mere accompaniment of the epithelial product. For these cases the designation pityriasis, or pityriasis simplex would seem appropriate.

PRURIGO (OF HEBRA).—Robert Campbell, M. D. (*Archives of Dermatology*, April, 1878), has reported a case of true prurigo, as described by Hebra, this being the second case, so far as is known, that has been reported in the United States.

In this case the skin presents a yellowish-brown pigmented appearance. The entire body, with a few exceptional places, is covered with discrete papules, in size from the head of a pin to that of a bean. The papules are subcutaneous, and feel as if small shot had been introduced under the skin. They are mostly of the color of the skin, and would frequently escape notice if the hand were not passed over the skin. The head is free from eruption. On the forehead and face the papules are numerous. The nose, upper and lower lips and chin are spared.

The neck in front, between the sterno mastoids, is free, but on the sides and back of the neck the papules are abundant. The eruption is found in the infra-clavicular region, and also just above the pubes, but the rest of the front of the body is spared. The shoulders show the papules sparsely, and the lumbar region has them quite numerously, as well as on the sides of the body near the lumbar region.

In the upper extremities the axillary glands are enlarged, but the eruption is mostly confined to the fore-arms. Toward the wrist and on the back of the hand the skin is deeply furrowed, almost amounting to fissure. The finger nails are bulbous. The lower extremities are more thickly covered below the knee, but a few papules are formed above the knee. The regions over the tibialis anticus and peronei muscles show this peculiar eruption to the best advantage. The toes are not well developed, and the nails are bulbous.

The treatment is not very successful.

Action of Medicines.

MODE OF ACTION OF HYPNOTIC SUBSTANCES.—(*C. Binz, Centralb. f. d. M. W., No. 47. 1877—Lyon Médical,* March 24, 1878.)—Immediately after killing some dogs and rabbits, Binz removed some pieces of cerebral gray matter and placed them in different solutions, where they were exposed to vapors of different sorts; solution of seven per cent sodium chloride, two per cent atropia sulph., two per cent morph. sulph., chloral hydrate, camphor, pyrogallic acid and vapors of chloroform and ether. Hypnotic and anæsthetic substances have an equal alterant action upon microscopical preparations; the other nerve poisons have, on the contrary, no action, or act as indifferent solutions; thus, in sodium chloride solutions, the ganglionic cells are clear and sharply defined, the intercellular substance distinctly nucleated. From the action of the narcotic substances, the broadly defined cells have a cloudy protoplasma and the intercellular substance is dark.

The author rejects the hypothesis of cerebral anæmia being the cause of hypnosis and normal sleep, for by uncovering the brains of dogs and rabits, after having chloralized or etherized the animals, he noticed that narcosis was independent of the vascular supply, but that, similar to the glands, the brain was anæmic when it was in repose. Binz, in consequence, concludes that morphia, chloral, ether and chloroform possess a great affinity for the substance composing the cerebral cortex of man; this matter unites for a certain time with the hypnotics which the blood brings to it, and the modification of the molecular state which results from this union renders the cells incapable of exercising the functions of the waking state.

SEVERE HICCOUGH CURED BY COMPRESSION OF THE EPIGASTRIUM.—(*Journal de Méd. et de Chir. Prat., Jan. 1877—Lyon Médical*, March 24, 1878.)—On October 13, 1874, Dr. Favier received into his wards an adult patient, who for three weeks had been affected night and day by a violent hiccough. From October 15th to November 5th, almost every therapeutical resource usually made use of under such circumstances was employed without success—morphia upon the denuded derm, the actual cautery by points to the epigastrium, morphia injections in the course of the phrenic nerves, liquid ammonia to the pharynx, and internally, ether, potass. brom., camph. brom., chloral, atrop. sulph., quinia sulph., musk, etc.—and yet the hiccough was only arrested at times, for two or three hours at night. On November 1st, permanent compression of the epigastrium by J. L. Petit's tourniquet was tried. Five minutes after the application of the bandage, the hiccough was arrested, but as soon as compression was lessened, it would return, to cease again on tightening the bandage. The tourniquet was employed for eight days, and even then, it had to be re-applied several times for some hours to cut short an impending relapse. From that time onwards, the attacks ceased to make their appearance.

Obstetrics.

THE USE OF ANÆSTHETICS DURING LABOR (*L'Union Médicale*, April 24, 1878).—Dr. Lucas-Championniére, during a late discussion before the Société Médicale des Hôpitaux, presented an interesting communication upon this subject. His attention had been seriously drawn to the practice by a conversation with Simpson, some twelve years ago ; but at first he obtained but indifferent results on account of the want of a method of administering the anæsthetic, and of an unfortunate tendency to produce surgical anæsthesia. From his present experience in civil practice, from the results obtained by the continued administration of chloroform in his obstetrical wards, he speaks to-day as an ardent supporter of obstetrical anæsthesia.

The end to be attained is the *suppression* of *pain*, without the *complete* loss of *consciousness*. This result cannot be always obtained by employing the same method, with the same quantity of chloroform in the same length of time. He who administers the agent with such expectations, will certainly be quickly disappointed.

The action of chloroform varies according to individual dispositions and the period of labor, when its administration is commenced. Hence two indications for practice.

If the physician arrives early, he gives four or five drops upon a handkerchief to the patient to inhale, whenever she feels the coming contraction. The acuity of the pain is not perceived, and the patient calls for the chloroform as she needs it. The period of dilatation is thus passed through, and as the head approaches the vulva, the woman calls more urgently for the anæsthetic. Its quantity may then be augmented, or it may be entirely withheld, according to the physician's opinion.

Such cases are the simplest, but unfortunately they are not the most common. The quantity of chloroform used is so small, that one can hardly believe she has obtained so much comfort from so little of the agent.

Other women have not the same susceptibility, and particularly so if the inhalations have not been commenced until they have suffered severely for one or two hours. They do not obtain any ease until a much larger quantity of chloroform is administered. They should not *lose* consciousness, but they must feel very sleepy, and as soon as this feeling of drowsiness passes away, they call for the anæsthetic. A very minute quantity is sufficient to keep up this state, but if they thoroughly awaken, a large quantity is again necessary to bring them to this favorable condition.

In a third class of cases, the patients are still more refractory, and this usually occurs in those in whom labor commences long after the rupture of the membranes, when the uterus is hard and contracted, or in whom labor is far advanced. For these, we are almost obliged to use Simpson's method; but still *surgical* anæsthesia is not required, for the sleep, which precedes the stage of excitement, will usually suffice.

What are the results of this hemi-anæsthesia?

1st. Pain is suppressed; the contractions are simply perceptible.

2d. Continuous contractions disappear, and with them the accompanying excitement.

3d. Uterine contractions are not checked, but if they occur very closely upon one another; if they are short, inefficacious, insupportable, they become more powerful, and occur less frequently. In these cases, however, an interruption of labor for fifteen or twenty minutes sometimes takes place, before this regular labor commences.

4th. Its influence on labor is in reality favorable, for the latter usually progresses very fast.

5th. It is not the cause of any danger, nor does it present any inconveniences, such as emesis, etc.

6th. Post-partum hemorrhages do not occur any more frequently than in the cases where no anæsthetic is given.

7th. The children do not seem to suffer in the least.

8th. The mothers are able to get up sooner than those who have not thus taken the chloroform.

What are the indications for giving the anæsthetic?

It may be administered to any woman who fears to suffer; and that should be the rule in private practice. Of course, in hospital and dispensary wards, this would be too expensive; but even here, as soon as the pains become exceptionally acute, the patient should have chloroform. (In his wards it has long been the rule, that the women should not suffer.)

In difficult labor, he believes that it is wise practice to administer the anæsthetic during the time which must elapse before intervention can take place.

Are there any contra-indications?

An organic affection of the heart, without pulmonary complication, rather calls for this hemi-anæsthesia than contra-indicates it, for there is less danger from the agent than from the woman's sufferings. Chronic pulmonary lesions indicate the use of chloroform, on account of repose, brought on by its employment, taking the place of the respiratory disorders brought on by the painful efforts.

Reference here is always made to Lucas-Championniére's hemi-anæsthesia, the limit to which is the *loss* of *consciousness* of being *touched* (which should not occur). Hence there is no question of surgical anæsthesia.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Our Summer Vacations.

Where are you going this season? is a question oft repeated during the summer months by the residents of our larger towns and cities. Where shall I go? the patient often inquires of the family medical adviser, but more often of some friend.

Ministers, lawyers, business men, clerks, teachers, young and old, women and children, very generally have a vacation, which they vaguely expect to spend in physical recuperation. The fashionably educated seek their rest at the crowded shrines of fashion—Saratoga, Long Branch, Newport, etc. A few seek a total change of scene, of habits and of life, and thus find the needed rest.

That a life in the woods, by the stream, or on the lake, is best calculated to give this rest a few have learned. By these the essentials of a savage life are employed to correct the evils of a civilized state. That these evils are real and profound, the most superficial student of modern society must admit. We were led to this train of thought by the printer's gentle reminder that we were expected to furnish the copy usually supplied by our fellow-worker, Dr. H. A. Cleland, because he had gone to rusticate for a month among the Catskills of New York. Then recurred the thought, why should not doctors take vacations like other human beings? That they need it equally with others can scarcely be doubted. Although our business is to care for the health of others, no reason should thus be afforded for neglecting our own. Yearly we are called upon to chronicle the fact that many of our best men have died from a disobedience of the laws of rest. That hundreds of others, less prominent, but not less worthy members are taken from our ranks by the same cause, we have the best reasons for believing.

In view of this, the question gravely presents itself: Why this sacrifice—this waste of human life? Perhaps the Darwinian may answer, "Let the fittest survive." Unfortunately the fact shows that the fittest doctors are the ones thus sacrificed; the indolent and the incompetent rarely die of overwork or over worry.

Another tells us that the doctor is held at his post by fealty to his patients. With some in some cases this may be true, but we suspect there are few who at some time could not leave without harm to any patient. Then we doubt if the doctor is required to surpass the golden rule, which only requires a regard to others equal to that held to one's self. Besides, by his recreation, the doctor is physically, mentally and morally strengthened to better serve his patients during the remainder of the year. Let any one ask and answer the question, how many who have died, might have been saved, had their medical advisers possessed a vigorous body and its attendant sound mind?

There are few but have known irretrievable damage to result from the efforts of the overworked to care for delicate and difficult cases. Thus, in which ever way we turn, the doctor's duty to his patients demands a vacation at least once a year—long enough to restore the jaded body to its wonted freshness. With the younger portion of the profession, we can understand how a lack of means and a lack of patients might prevent this taking any considerable vacation. They do not become so exhausted as to require the extended vacation of which we speak. But with the established physician of middle life, there is really no excuse for neglecting to take a summer vacation. What matter if some young struggling practitioner did attend to some of his elder's patients during his absence? This is simply gain to all. In the specialties the taking of vacations has come to be very common, and we see no reason why the general practitioner should be less favored, especially in towns and cities. Those who must remain would suffice to attend to all the sick. We trust that each of our readers will at once set about so arranging his affairs as to take even yet a vacation—any place for any length of time, is better than remaining constantly at the tread-mill of an artificial and exacting work. Away to long hours of undisturbed sleep, to a moderate physical exercise called forth by hunting, fishing, botanizing, etc. Away to the pure air of the forest, mountain, lake or ocean. Away to a stillness unbroken by the steam whistle, the rumble of cars or carriages over the stony streets, and the conflict of human voices. Away from the daily paper and the telegraph. Away to a common and more liberal diet. Away from discontent and strife with thy fellows.

Then shall thy strength be renewed, and thy mental and moral forces shall re-arrange thy disordered frame into a new man, filled with peace and joy—shouting and laughing and talking and working for the very pleasure of the activity—like the frisking of the colt at play, or the singing of the bird at morn.

L. C.

Dangers from Color Blindness.

Such is the title of an able paper from the pen of Dr. B. Joy Jeffries, published in the last report of the Massachusetts State Board of Health. During the past two years this matter has been so successfully agitated in Great Britain and on the continent, that in most of those countries the employés on railroads and vessels are so tested as to prove that they can distinguish the colors displayed as warning signals. This revolution has demonstrably increased the safety of travelers and the profits of the railroads and vessel lines. The facts presented fully explain many hitherto inexplicable railroad and vessel accidents, and show how all such accidents may be prevented in the future. Nothing but the ignorance or stupidity of railroad and vessel managers stands in the way of accomplishing this most desirable object. What are the facts? Dr. Jeffries briefly states them, as follows: Certainly one in fifty—much more, probably one in twenty—of the community is color blind in greater or less degree. Of this defect they may even themselves be wholly unconscious. Practically this color blindness may be regarded as *red-green* blindness and *blue-yellow* blindness, though total color blindness exists also.

This defect may be hereditary, or be caused by disease or injury, and exists in varying degrees. When congenital it is incurable. Experiment and experience show that *red* and *green lights* must be used in the marine service to designate a vessel's motion and movements, and at least red lights on railways to designate danger. The peculiar conditions under which railroad employés and mariners perform their duty often render colored signals, and especially colored lights, difficult to be correctly seen. The color blind cannot correctly see these colored signals. It is therefore clear that great danger results from color blindness. Further facts prove that railroad and marine accidents have occurred from it.

To protect the public and the transportation companies from loss of life and property, all persons whose duty requires perfect color perception should be examined by a competent expert, and, if found deficient, removed. Further, all persons hereafter appointed to such position should be previously examined by an expert, and his fitness as to perception of colors assured. Besides, every employé who has had a severe illness, or who has been injured, should be tested again for color blindness before he is allowed to resume his duties. A law from the Legislature, or from the State railroad commissioners, or rules established by the transportation companies themselves, might accomplish the purpose. In one way or another the public should be so educated as to demand this protection. The facility and certainty by which an expert is now able to determine the existence of color blindness removes the last excuse. Hereafter, in the matter of suit for damages against a transportation company, it will be inquired, did the employés on duty at the place of accident have perfect color vision? Such color vision, we hold, these companies are now bound to guarantee as one of the means for safe conveyance. These companies must be taught to see that in this way, as well as by preventing a destruction of property during accidents, it will *pay* for them to *hire a competent expert* to perform the needed *examination.*

L. C.

Collecting Agency of Mr. Sidney Williams.

In February, 1878, a man calling himself Sidney Williams, of Indianapolis, Ind., appeared in Detroit. He represented that he was engaged in establishing "an association of physicians of Michigan, Indiana, Wisconsin and Illinois, for the purpose of mutually securing a proper remuneration for services rendered, and for the collection of accounts." He spoke very flatteringly of his success in the States of Michigan and Indiana, especially at Indianapolis, Ind. He freely used Dr. Theophilus Parvin's name, and solicited subscriptions to his journal. These facts lulled the suspicions of our physicians, and in large numbers they joined this so-called association and paid their $3. On the first of April we were promised that a report of all the dead-beats within the State of Michigan should be made out, printed, and sent to each member. To this date we have received no intimation of the publishing of these reports. Several of our physicians have written to Mr. Sidney Williams about the matter, but have received no response. Thus far the matter looks very like a swindle, and we are so impressed that such is the fact, that we recommend to our brother doctors elsewhere that they keep their money to pay collectors known to be honest.

This is the second time within a few years that the profession in this part of the country has been scooped by some fellow claiming to have a patent process for collecting bad debts and protecting the profession from swindlers. There is an undoubted want felt for some means to meet this end, but we fancy that hereafter he who would combine the profession here in any such plan must be other than an adventurer.

L. C.

Memoranda.

The latest urinal is a large coarse sponge, inclosed in an oiled silk bag.

Abundant testimony supports the claim of crysophanic acid to be *the* remedy in psoriasis.

An unstable nervous system, one ever becoming exhausted, is the primary and real cause of inebriety.

Dr. George Strawbridge recommends the local use of ether in chronic disease of the eustachian tubes and middle ear. It is applied by means of a Politzer's bag—three to ten drops of the ether being placed in the bag before using.

Cyon claims that the eighth pair of cerebral nerves contain nerves of entirely distinct senses—the auditory and nerve of space. The latter he regards as the source of all our ideas of extension and of the three dimensions of space.

Dr. Harrison Allen has been chosen Professor of the Institutes of Medicine in the University of Pennsylvania.

In Great Britain and Ireland the annual cost of the alcoholic liquors consumed amounts to seven hundred and thirty million dollars. Of the inmates of the work-houses it is estimated that five-sevenths have been brought there by this agent.

Duboisin is the name of a new mydriatic drug. This alkaloid is extracted from an Australian tree. It brings on mydriasis very rapidly, and very soon thereafter complete paralysis of the muscles of accommodation—much sooner than does atropia. It is especially useful in cases where atropia cannot be borne.

PREGNANCY AT EIGHT YEARS.—The *Gazette Hebdomadaire* of March 8th reports a case of extraordinary precocity in a girl of eight years of age. She was born fully developed, and with hair on the pubes, menstruated at four years, and was seduced and became pregnant at eight. The pregnancy resulted in a mole, containing a well-characterized embryo.—*New York Medical Journal.*

The Cincinnati Academy of Medicine at a late meeting discussed the anatomy act, as it exists in the State of Ohio. The special inducement to attack such a subject during the hot weather was the recent unpleasant developments respecting body-snatching. After a full discussion this body "*Resolved*, By the Academy of Medicine, that a committee of three be appointed by the President to memorialize the Legislature at its next session to pass such a law or laws as will enable the legal procuring for the purposes of dissection, of any or all bodies of persons dying in public institutions of the State, county infirmaries and city hospitals, such as may at the expiration of twenty-four hours after death remain unclaimed by friends or relatives, and also all bodies found dead which may remain unclaimed during the period of time above stated." The same committee was directed to secure the signatures of the profession of Ohio to a petition to the Legislature that it make the required laws.

Quinetum is the euphonious name given to a preparation of the alkaloids of the cinchona bark, which must be similar to, if not identical with, the cincho-quinine prepared by Billings, Clapp & Co., Boston. This preparation (quinetum) is prepared in Holland, and is used by physicians at the Hague and throughout the Kingdom of the Netherlands.

The *Cincinnati Clinic* and *Lancet and Observer* have been consolidated into one journal, to be known as the *Lancet and Clinic*, and issued weekly as a twenty-four pagè paper. The editors of both the old papers will work on the new one, Dr. Culbertson devoting special attention to the business, and Dr. Hyndman to the editorial work. The past record of these journals and their editors enables us to believe that a weekly will result that will have no superior on the continent. Most cordially do we tender our friends our heartiest wishes for their most perfect success.

The McDowell monument, about to be erected at Danville, Ky., will consist of a shaft of granite, thirty feet high, five feet square at the base. The style will be Doric. On the lower part of the shaft is the monogram of the family, with the motto, "Honor to whom honor is due." Above is a fine bronze medallion of McDowell inserted into the granite. On the base of the shaft is the name and inscription: "BENEATH THIS SHAFT RESTS EPHRAIM McDOWELL, M. D., THE FATHER OF OVARIOTOMY, WHO BY ORIGINATING A GREAT SURGICAL OPERATION BECAME A BENEFACTOR OF HIS RACE; KNOWN AND HONORED THROUGHOUT THE CIVILIZED WORLD." On the right side of the base is a laurel wreath, with the inscription: "A GRATEFUL PROFESSION REVERES HIS MEMORY AND TREASURES HIS EXAMPLE." On the left side is an historic inscription, with the date of his birth, attendance at the University of Edinburgh, and his first ovariotomy, in 1809, surrounded by the Æsculapian serpent coiled in a circle, symbolic of eternity. On the posterior face is the inscription, "ERECTED BY THE KENTUCKY STATE MEDICAL SOCIETY, A. D. 1879." An ovarian jubilee is expected at the meeting of the Kentucky State Medical Society next year.

The meeting of the Livingston County Medical Society, held at Howell, June 19, 1878, seems, from the accounts in the local papers, to have been both pleasant and successful. A paper by Dr. S. Duboise on "Popular Medical Education," presented in clear relief an important topic. A paper on "Puerperal Convulsions," by Hayford, excited considerable discussion. It does not strike us that the publication of such reports in a local paper is the best method for promoting popular medical education.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Vol. 2, for the year 1877. Cloth; pp. 697. Boston: Houghton, Osgood & Co. Price $6.50.

In addition to the papers read before the society, the secretary, and Dr. J. S. Billings, U. S. A., have prepared an index to the gynecological and obstetrical literature of all countries, from July 1, 1876, to Jan. 1, 1877.

This is an excellent feature, and will be continued in succeeding volumes. The body of the volume contains thirty-one papers. Woodcuts, heliotypes and lithographs are freely used in elucidating the text. The lithographs illustrating Prof. Dalton's report on the *corpus luteum* are especially elegant. This report covers thirty-two cases, and adds very considerably to our positive knowledge on this subject. As to the changes of the *corpus luteum* taking place after abortion, our knowledge is still very deficient. Dr. James R. Chadwick discusses "The Functions of the Anal Sphincters;" Dr. John Byrne, "Amputation and Excision of the Cervix Uteri;" Prof. Otto Spieltberg, "The Pathology and Treatment of Puerperal Eclampsia;" Dr. Geo. H. Lyman, "Dilatation of the Cervix Uteri, for the

Arrest of Uterine Hemorrhage;" Dr. A. F. C. Skene, "The Principles of Gynecological Surgery applied in Obstetrical Operations;" Dr. Geo. F. Engleman, "Researches on the Mucous Membrane of the Uterus," and "Hystero-Neuroses;" Dr. Wm. T. Lusk, "Necessity of Caution in the Employment of Chloroform during Labor;" Dr. Ely Van de Warker, "Present Status of the Intra-Uterine Stem in the Treatment of Flexions of the Uterus;" Dr. Wm. Goodell, "Case of Vaginal Ovariotomy;" Dr. Robert Battey, "Is there a Proper Field for Battey's Operation?" Dr. H. P. C. Wilson, "Subsulphate of Iron as an Antiseptic in the Surgery of the Pelvis;" Dr. T. Parvin, "Case of Ovariotomy followed by Tetanus;" Dr. Washington Atlees, "Sarcoma of the Ovaries;" Dr. Paul F. Munde, "The Value of Electrolysis in the Treatment of Ovarian Tumors;" Dr. Thomas A. Emmet, "Congenital Absence and Accidental Atresia of the Vagina—Mode of Operating to Establish the Canal, and Evacuate Retained Menstrual Fluid;" Dr. W. H. Geddings, "Case of Sarcoma of the Kidney in a Negro Child;" Dr. Gilman Kimball, "Cases Illustrating Important Points Connected with Ovariotomy; Dr. Elwood Wilson, "Radical Treatment of Dysmemorrhea and Sterility by Rapid Dilatation of the Canal of the Neck of the Uterus;" Dr. John P. Reynolds, "Dr. Uvedale West's Views of Rotations, as Illustrated by the Contrast between the Mechanism of Simple-Occipito-Posterior Positions and those of the Bregmato-Cotyloid Variety;" Dr. A. Reves Jackson, "Vascular Tumors of the Female Urethra, with Description of a Speculum Devised to Facilitate their Removal;" Dr. Thad. A. Reamy, "The Simpler Varieties of Perineal Laceration;" Dr. H. F. Garrigues, "Lying-in Institutions;" Dr. John Goodman, "The Menstrual Cycle." We have given this list of subjects and authors for the benefit of those who do not possess these transactions, and yet may desire to become familiar with some one of the topics considered. It will be observed the range of subjects is very broad, and includes not a little anatomy and physiology. The care manifested in the editor's work, and the elegance in that of the publishers, are fully equal to that found in the first volume.

PRESCRIPTION WRITING, DESIGNED FOR THE USE OF MEDICAL STUDENTS WHO HAVE NEVER STUDIED LATIN. By F. H. Gerrish, M. D., Prof. Materia Medica and Therapeutics in Medical School of Maine. Cloth; pp. 50. 1878. Portland, Me.: Lorny, Shot & Harmon.

In the author's language, this little book "is not designed to give instruction in the art of prescribing, but simply to teach those who know nothing whatever of the language, the little Latin which is essential to correct prescription writing, and to inculcate such lessons on this subject as a considerable experience in teaching has shown to be desirable." First are given the rules to be observed in writing prescriptions, and then all the words needed to write such prescription. Since there are vast numbers in the profession entirely innocent of any knowledge of Latin, and hundreds more added yearly, it would seem that Dr. Gerrish's book had a crowded audience.

We concur entirely with the view that Latin is the language in which prescriptions can best be written, and we are sure that his labors will do much to retain enough of this language to answer this purpose. We incline to the opinion that many fair classical students will find in this little book valuable aid in utilizing their knowledge for this special purpose. A considerable observation has convinced us that far too little attention is paid to the form of prescriptions. Rightly considered, the prescription is the crystallization of the physician's knowledge of any particular case, and unless great care is exercised, the crystals are very apt to be rudely or ill-formed.

Should any careful student in the profession doubt this, let him examine the files of prescriptions as found in any drug-store.

ANTAGONISM OF ALCOHOL AND DIPHTHERIA. By E. N. Chapman, A. M., M. D.. Cloth; pp. 100. 1878. Brooklyn, N. Y.: Union Steam Printing Establishment.

For seventeen and one-half years we are told the author has been accumulating facts to prove that alcohol is capable of saving 95 per cent of the cases of diphtheria, in severe epidemics.

The book is made up of a reprint in an unaltered form of papers, published in various journals. As such, it is rambling, disconnected and unsatisfactory. For this the author apologizes in his preface; but we think that, after waiting seventeen years, the author might have taken a few days more, and arranged his material in such a shape as to render his meaning clear, and to place his facts in logical order. The form and arrangement are simply execrable. If he treats his patients with the same absence of method as is displayed in this book, we are sure that the best thing for the patients would be to keep drunk all of the time. Seriously, we have no doubt that alcohol is a good remedy in diphtheria, as it is in some other forms of poisoning; and if this book shall induce any to give it a fair trial, we shall excuse the author's wretched arrangement of his matter.

Application of Pressure in Disease of the Uterus. By Dr. V. H. Taliaferro, Atlanta. Paper; pp. 26. Reprint from Trans. Med. Association of Georgia:

The object of this paper is to show that in gynecology, pressure exercises a therapeutic power no less wonderful than in general surgery. In congestion and disordered local nutrition, uterine hyperplasia and hypertrophy, its effects are most marked.

This pressure is applied by tamponing the vagina. Sheep's wool, cleansed, carded into bales, and properly disinfected, is the material advised. The woman is placed in Sims' knee and chest position. A Sims' speculum opens the external outlet of the vagina. By a dressing forceps, the vagina is now packed full of the wool. At first one or two pieces of cotton *soaked* in glycerine, are placed over and about the os. The tightly rolled pledgets of wool are then applied dry, so as to entirely fill the vaginal canal down to the muscular wall of the pelvis. The vaginal orifice should close over the filling. The effects of the tampon thus applied are, to diminish blood supply and nutrition, to act as a sorbefacient, to destroy redundant tissues by destructive metamorphosis, to diminish nervous action, and to rectify malpositions.

ATLAS OF DISEASES OF THE SKIN. By Balmanno Squire, M. B. Price 10s. 6d. Octavo; paper; pp. 89. London, England: J. & A. Churchill, New Burlington Street. 1878.

This little book contains four lithographic plates, with accompanying letter-press. The subjects are nævus vascularis, and nævus vascularis with molluscum; psoriasis diffusa before and after treatment. The plan of issuing these lithographs differs from that usually followed, in that first they are printed on an octavo page, enlarged in size. Thus there are no margins, and but a portion of the subject represented. The plan strikes us favorably, as the atlas will be very convenient, and in all practical respects equal to the large atlases and the former plans. The paper and letter-press is superior to the better class of English works.

We shall look with great interest for the issue of the succeeding parts, as, if completed in accordance with the present number, the work will be of exceptional value.

THE INTRA-VENOUS INJECTION OF MILK AS A SUBSTITUTE FOR THE TRANSFUSION OF BLOOD — ILLUSTRATED BY SEVEN OPERATIONS. By T. Gaillard Thomas, M. D. Paper; pp. 19. Reprint from *New York Medical Journal*, May, 1878.

The author's views are given in the following condensed form: (1) The injection of milk into the circulation in place of blood, is a perfectly feasible, safe and legitimate procedure, which enables us to avoid most of the difficulties and dangers of the latter operation. (2) None but milk removed from a healthy cow, within a few moments of the injection should be employed. (3) A glass funnel with a rubber tube attached to it, ending in a very small canula, is better, safer and more attainable than a more elaborate apparatus, which is apt, in spite of all precautions, to admit air to the circulation. (4) The intravenous injection of milk is infinitely easier than the transfusion of blood. (5) The injection of milk, like that of blood, is commonly followed by a chill, and rapid and marked rise of temperature; then all subsides, and great improvement shows itself in the patient's condition. (6) Lacteal injections are indicated, not only in cases prostrated by hemorrhage, but by those disorders which greatly depreciate the blood, as Asiatic cholera, pernicious anæmia, typhoid fever, etc. (7) Not more than eight ounces of milk should be injected at one operation.

A CASE OF VAGINAL OVARIOTOMY. By Dr. Wm. Goodell. Paper; pp. 18. Reprint from Trans. Amer. Gynecological Society. Vol. 2.

This case makes the sixth now on record. Its success left nothing to be desired.

LAPARO-ELYTROTOMY—A SUBSTITUTE FOR THE CÆSARIAN SECTION. By T. Gaillard Thomas, M. D. Paper; pp. 25. Reprint from *Amer. Jour. Obstetrics*, April, 1878.

In this operation the vagina is opened instead of the uterus, as in Cæsarian section. The name is a fearful one, and we much prefer to follow Dr. Fordyce Barker, and call it Thomas's operation. No doubt a class of cases will be observed best treated by this method.

NINTH ANNUAL REUNION OF THE SOLDIERS AND SAILORS' ASSOCIATION OF MICHIGAN. Kalamazoo, June 20, 1878. Paper; pp. 26. 1878.

CERTAIN SYMPTOMS OF NERVOUS EXHAUSTION. By George M. Beard, M. D. Pages 24. Reprint from *Virginia Med. Monthly*, June, 1878.

A very interesting paper on an important subject.

REMARKS ON NASO-PHARYNGEAL CATARRH. By Dr. M. F. Coomes. Reprint from *Amer. Med. Bi-weekly*, June 8, 1878.

NEURALGIA AND ITS MODERN THERAPEUSIS. By James B. Baird. Paper; pp. 21. Reprint from Trans. Georgia State Medical Society.

THE DETROIT LANCET.

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Original Communications.

The Relation of Typhoid Fever to Water Currents in Sandy Soil.

BY DR. S. P. DUFFIELD, DEARBORNVILLE, MICH.

We must now, after so many investigations and critical researches of Griesinger, Liebermeister, Pettenkoffer and Giett, on the *cause* of typhoid fever, especially directed to the outbreak in Munich, in 1850–1858, at which time (1858) I was in the city of Munich, admit that the mere fact of *decaying vegetation* or decaying animal matter does not always produce typhoid fever poison.

I am aware that there are some who would attribute on one hand the typhoid to a diseased germ, and on the other hand there are those who deny that it is ever transmitted from patient to patient. This may be from the milder form of contagion, when compared with the true typhus. We know that in the Crimean war when the epidemic among the French soldiers had reached its height, 603 attendants out of 840, who were employed in twelve hospitals, were taken sick in fifty-seven days; and Griesinger, whom I have before mentioned, informs us that over eighty surgeons died of the disease (typhus) in the course of the campaign. Niemeyer confesses to having had to employ a felon who had just recovered from the fever, because all his nurses were down with the disease; and if you search further the bibliography of this affection, you will find that like or very nearly similar experiences have occurred in all its epidemics. In hospitals, unless the patients are isolated by a strict quarantine, they will infect the majority of the other patients, or at least fifty per cent.

But this is not the mode by which typhoid spreads; hence by some its direct contagion from person to person is denied. I belong in my individual views to this class; but, lest I may not be be fairly understood, I would here explain fully the ground upon which I have assumed this view. From the careful study of typhoid fever, as it occurs in our malarious region, here along the Rouge, I am satisfied that the typhoid poison is not a *contagion* in the strict sense of the word, that is, it cannot be communicated by transmission from one person to another, and such cannot be established by observation. Murchison gives out of 2,506 patients in the London Fever Hospital, having typhoid fever, through a period of fourteen and a half years, only eight cases originating in the hospital.

In my practice, I first assumed, to be on the safe side, that possibly this fever might be contagious as well as infectious, but a larger experience and more critical analysis of individual cases have demonstrated to me that in a good many cases it must have been purely *infectious*, as we could exclude the direct contact with the patient.

Now to certain points in the history of these several cases which go to substantiate the view of a *specific infectious* germ.

All through May, June and July I had in sum total 120 cases of intermittents, some severe but most generally mild and conquered easily in about three to five days. Not one case of remittent had appeared up to the latter portion of June. Then the remittent began with congestion of the portal circle, tenderness at the epigastrium, steady fever, delirium at night, constipation, gastric irritation to such an extent that blisters were necessary before we could have anything retained upon the stomach, *no tenderness over* the ileocœcal valve, no tympanites, no rash, and while through the thick yellow coating of the tongue the red enlarged papillæ protruded, still the tongue was not strictly typhoid in character, was not protruded with trembling. The temperature ran as follows. I select from one case:

DAY.	MORNING.	EVENING.
First day	99½	101½
Second day	104	104
Third day	100	103½
Fourth day	101½	105
Fifth day	100	104
Sixth day	98½	102
Seventh day	98½	98½
Eighth day	Convalescent.	

In this case there was no abdominal tenderness, not much nausea—intense headache, no smoky complexion, tenderness over the epigastrium—and the other cases in July partook a great deal of this character. Now, in this house, before this case B came down, I had a case of mild typhoid, in a lad of twelve years of age, which ran the regular typhoidal course with tympanites, variation of thermometer morning and evening, typhoidal stools, loose, pea-soup character; we will call this case A. B, his mother, was his nurse.

Now, I am disposed to look upon B's case as remittent fever. I treated it with large doses of quinine, pushing it up to twenty-one grains in twenty-four hours, citrate of potash, as the effervescing draught, and tinct. verat. viride with hyosciamus. On this place was a privy filled to overflowing with liquid contents; fifty feet from privy was the well from which they pumped the water which they used for drinking and cooking. (We will call this house No. 1, as I will refer to it on my diagram as I proceed.) The soil was sand, yellow sand, down to the very bottom of the well, which began to be a clay. I ordered them to stop the use of the well water, and sent them to a well, which was sunk in clay, and ordered them to boil the water even from the clay well. After B, the mother, had recovered, the father, the daughter, and the other son came down with the remittent type similar to the patient B, and ran just such a course. I had disinfected the privy with a large quantity of chloride of zinc, made by putting slab zinc in a stone-ware crock, and pouring commercial muriatic acid and water over it and letting it eat up the zinc. I also had them use this solution in the chamber of the typhoid boy, and diluted it and soaked all the bed clothing in it, which came from the typhoid case, before washing.

This was the first typhoid case which appeared. I presumed if I was at all disposed to favor the view, I would call the other cases *abortive;* but as I do not much believe in *abortive* typhoid I prefer to class them where their symptoms and temperatures would place them, viz., among the *remittents.*

Just a few weeks following, I was called to house No. 2, just east from the house No. 1 about 1,000 feet, and there found the mother with the typhoid (and here to avoid repetition allow me to say that I only called those typhoid which began the first week, after prodromata, with low temperatures in the morning, evening temperatures higher, tenderness over the ileocœcal valve, etc.), and so reported to the family. I carried the patient through, but being an ignorant Irish woman and having not any good surroundings, she did not allow her attendant friends for one moment to believe that she had the typhoid fever and continually berated me for having frightened away her friends, etc. No sooner had she recovered than she sought to excuse her neglect of paying any medical accounts, on the basis that what I stated was not true, that she never had the typhoid fever. Two weeks afterwards her family of four children, ranging from twelve years down to three years, sickened and became beyond all doubt typhoid cases. Not having conscience totally stifled she dare not send for me, but called in another physician, who had his errand of mercy to perform as well as I, and he carried them through genuine typhoid. This was case No. 2.

A poor but hard-working German woman was called in, after I had left the mother convalescent, to do some washing. This patient was forty-five years of age and had chronic bronchial catarrh; after having done the washing of the sheets, etc., she remained tolerably well until about two weeks had elapsed, when she began to complain, and fell into the hands of the

Methodist German minister of this place, who practiced, as he styled himself, "homeopadisch." He tried his saccharated infinitesimals for another week when she became violently delirious, and he, frightened, came down for me (as a minister), not telling me he had been practicing as a doctor. I went up and found the patient moribund. Here the patient had imbibed the infection by washing with or by drinking the well water, or by both.

Case No. 4 was a patient who had come from the city of Detroit to visit her mother, and after a short visit was taken with fever. It proved to be typhoid, running twenty-eight days.

In case No. 5 it broke out after these others had recovered, and the attending physician did not use the disinfecting system, and it took every young person in the house, and involved a married sister who lived next door.

I then was called to case No. 6, who had not been exposed to any influence unless the water of her own home. She came down with typhoid, was one and a half miles away from the village, but on the sand vein. This patient had it in mild form, running three weeks before convalescence set in.

Case No. 7 was a young man of nineteen years of age. In the house marked eight there had been two cases of typhoid under an irregular practitioner who had never used the chloride of zinc or any disinfectants, and as fast as one recovered another one came down; at last one of the family, a young girl, died. The dejectæ were thrown on the ground, etc.

Case No. 7 is at the foot of a slope of ground which descends from eight to seven. Case No. 7 was taken violently delirious and I was called to attend him; in spite of Ziemssen's apyretic treatment by bath and quinine, etc., it was impossible to save him. His was one of those cases where the the poison expends its fury upon the brain, and though we battled with these long weeks of doubt and despair we lost him on the twenty-first day. I used disinfectants and cautioned his parents, who were very sensible German people, about ventilation, and it ceased there, none of the family coming down afterwards, while every one of the younger members of eight had to pass through it.

My next case was No. 9, a poor German on the sand ridge. I quarantined here; it did not spread either in the family or outside.

The next case, No. 10, was typhoid. It was five miles from Dearborn and three and a half from case No. 9. She recovered, and from the quarantine I established I prevented it spreading.

Case No. 11 was in the hands of the irregular practitioner who had case No. 8; he had just come home from some other point in the state, and as this irregular practitioner did not know enough to disinfect, it is fair to presume the dejectæ and urine from this patient, who was a typhoidal case beyond all doubt, were cast upon the soil and infiltrated by means of rains, reached the streams which supplied the wells from which these different parties drank in their infection.

In proof of this point, we have staring us in the face the fact, that in the Scotch settlement, which is upon clay soil, not one case of real typhoid appeared. Bilious or remittent fevers and intermittents, were prevalent, and continued so until frost came, but no typhoids. While on the contrary, on the sandy ridge, no sooner did the wells begin to grow lower and in some the water was very low, than immediately in the space of a few days we found ourselves fighting typhoids, where two weeks before we had only to contend with remittents and intermittents.

Now, why was this? It could not have been atmospheric, for the same atmosphere extends over the clay as well as the sand ridge; and I am therefore driven to the conclusion that by carelessness in the first few, or even the first case there was an infection introduced to the stream of water underlying the sand, seeping down from above, and this infection was carried miles. You will notice on the roughly drawn map that I have depicted as well as I can the range of the typhoid.

You will also notice the river Rouge flows along the side and base of this district. Now, long before we had any typhoids appearing here, they had several cases at the county house whose drainage was allowed to pour into this river. It should not be so; but I attribute our first infection in part to this state of affairs.

Successful Laryngotomy for Relief of Cynanche Trachealis.

BY JOHN H. MORTON, M.D. READ BEFORE THE SOUTH-WESTERN KENTUCKY MEDICAL ASSOCIATION, NOVEMBER, 1877.

The case of laryngotomy, which I present to the readers of THE LANCET in this paper, is, as I consider, of an unusually interesting character, and especially is it so, considering the perfect success, beauty and happiness of its termination. It is also the more interesting from the fact, that it is the only case I can find among a very large number of records, where a human life has been saved directly from a death resulting immediately from true membranous croup. All the other cases of both laryngotomy and tracheotomy of which I find mention, have been performed for the relief of some other character of affection, or for the removal of foreign bodies, and not for the relief of cynanche trachealis.

The case now to be considered is a little daughter of Dr. G. S. Miles, age six years and two months, at the time of the operation. Thirty-six hours before the operation was performed, the child became unusually hoarse, and complained to its mother of soreness in her throat, and accompanied with general feebleness of the system. At first very little attention was paid to the case by any of the family, the child still playing about the house and yard. But about twelve or fifteen hours subsequently, it was observed that the hoarseness increased, when her father became more apprehensive, and sent for myself, I arriving about eighteen hours before we operated, *i. e.*, four o'clock in the morning. Upon close examination of the fauces by depressing the tongue with a spoon handle, I at once recognized enlarged and inflamed tonsils, and I attributed the whispering hoarseness to an attack of tonsilitis, a disease with which at the time two others of Dr. Miles' children were affected. With a view of relieving the hoarseness, and breaking up the supposed accumulation of tenacious sputa, I prescribed pulverized chlorate of potassa and alum well rubbed in honey, to be swallowed frequently, and 40 drops of the tincture of lobelia every 30 minutes, until the patient became nauseated. The child had taken calomel 10 hours previous to this, but had suffered no action. At this time no membranes were detected, and membranous croup was not suspected, especially by myself. Six hours afterwards Dr. C. W. Miles was called in, the symptoms having changed and becoming more aggravated. After another examination and earnest consultation, a clear case of cynanche trachealis was made out. This diagnosis was now confirmed by a complete loss of voice, difficult and labored respiration, alarmed and excited countenance, but as yet no false membranes were observed. Various applications of hot cloths, poultices, etc., to the throat. The spray of a solution of nitrate of silver to the fauces having been used with no benefit, Dr. D. M. Pearce, of Union City, was dispatched for, and having arrived, another consultation was held, and the operation of laryngotomy was decided upon as the only remaining chance for the child. The chief and only question still existing for us to decide was, how long should we wait or postpone the moment of operating. We waited, remaining undecided until 11 o'clock P. M., the symptoms momentarily becoming more exaggerated as time passed, when, 42 hours after the first complaint of the child, we began the administration of the ordinary commercial chloroform. At this time the respirations were about 14 per minute, and entirely abdominal and diaphragmatic. There was no voice whatever, but a loud whistling noise upon each inspiration ; pulse very weak, ranging from 130 to 140 per minute. About six paroxysms had occurred, and every three minutes a severe struggle and gasping for breath ensued. We began the use of chloroform before removing her to the operating table. She struggled against the drug for awhile, but when she was partially under its influence, she was lifted into an open dining-hall, where a long table had been prepared, by covering it with a quilt and sheet, and another quilt was rolled to its proper size, and placed under the back of her neck, in order to throw the head backwards and downwards, and to pitch the form of the neck upwards and forwards. Being sufficiently influenced by the chloroform, myself administering, Dr. C. W. Miles using the sponge, and Dr. D. M. Pearce operating, a careful and straight downward incision was made in the median line of the neck, with a sharp-pointed bistoury, about one and one quarter inches in length, immediately over the crico-thyroid space, beginning at the cricoid cartilage, running downward. Dr. P. then, with the handle of the scalpel, pushed through the subcellular tissue, etc., until he reached the first ring of the larynx; then, with the point of the bistoury, he made a quick piercing incision, dividing the first ring, and entering the larynx. Then, with a probe-pointed bistoury, he divided two more rings downwards, making the opening large enough for the entrance of a duplicated silver tube, one-fourth of an inch in diameter at its base. The tube was immediately inserted, but became stopped up with coagulated blood, and not admitting air, the operator upon the next expiration placed his mouth to the tube, and drew it free from blood by the force of suction, whereupon at the next inspiration of the child the air rushed in through the tube with a loud whistling noise. At once artificial introduction of the air was freely set up, the lungs filled well, and after cleansing the tube three times by the application of the operator's mouth in suction, the patient began breathing regularly, and from that moment the child's life was saved; it was completely relieved, inhaling plenty of air without effort, and lying perfectly at rest under the influence of chloroform. For three hours she rested in this condition, when she awoke crying, very much excited, and making desperate and pitiful efforts with the tongue and lips, to speak rapidly, wondering greatly why she could not hear her own voice. Her mother was called to the bedside, when, after quieting the child, she made signs for something to eat at 2 o'clock A. M. of the same night, her appetite being good, and continuing so during her entire convalescence. Her bowels moved naturally next morning.

When the case was placed in bed after being operated upon, and the tube placed in the opening made for it, the temperature of the room was raised by means of a large wood stove, to 78 degrees Fahr., and kept uniform from 78 degrees to 82 degrees during her entire illness. The subsequent treatment consisted of a dose of quinine every morning, to correct any malarial tendency, with the proper attention paid to the regulation of the bowels. One person was required to sit at her bedside constantly, whose duty it was to sponge from the mouth of the tube the bloody mucous which filled the tube, and excluded the air, when coughing. This duty is very essential, for frequently the life of the patient depends upon the keeping the tube clean, as many cases have been lost from the neglect of this careful nursing. Dr. George Beeler, of Clinton, Ky., made a verbal report to the S. W. Ky. Medical Society, of three cases upon whom he had successfully operated, but lost two of them for the want of this indispensable portion of the nursing. This should be a young physician's duty, who understands its importance; for indeed this is a very troublesome matter until all inflammation of the trachea has subsided, the tube is removed, and the patient begins to breathe through the natural passages. This patient expectorated altogether through the tube; at times ejecting large white flakes of false membrane, but most of the latter was taken up by absorption.

The tube used was one of silver, one and one-half inches long, properly curved. The inner tube was taken out every three hours for the purpose of cleansing. While attending to this three days after the operation, the external tube having never been tied in by tape around the neck, while the child was making violent efforts at coughing, the external tube was blown entirely out. I placed a wet cloth over the opening, but found respiration still impeded by the disease, when I very easily placed the tube back in its proper position, and secured it there with tape, when she breathed free again. On the fifth day I concluded to make another effort to remove the tube, but found upon letting the instrument remain out a moment or two, the incision, or, now, round opening, soon stopped up with mucus, and shut off the air from the lungs; evidently the false membrane still remained intact. The tube was replaced. The next attempt I made to remove the tube was successful, 204 hours, or on the ninth day after the operation.

The child now articulated in whispers. Ten hours afterwards she was speaking audibly, and breathed perfectly free again, through the natural passage for the first time in 248 hours. The opening closed neatly up in 48 hours, healing like an ordinary incision, having kept it dressed with a mild carbolic acid ointment.

The great danger we apprehended was the setting up of pneumonia, an event we zealously guarded against, by regulating the sick room in its temperature, quietude, etc. After all our care, we are of the opinion that there ensued some slight inflammation of the upper lobe of the left lung, but not enough to justify any great alarm.

In concluding the case I would suggest that in the performance of the operation, the utmost dispatch, rapidity and accuracy should be the object of the surgeon. Dr. Pearce performed this operation, and the child was breathing freely, in less than five minutes after she came under the influence of the anæsthetic. The operation is indeed very simple, and especially that of laryngotomy, where there is no swelling or tumefaction, and still more so when the operator is thoroughly conversant with the mode of operating and the anatomy of the parts.

I do not think any physician is justifiable in permitting a patient to die for the want of an operation upon the windpipe, either of laryngotomy or tracheotomy; and neither do I think he has done his entire duty, even if the prospect of death is overbalancing, and it has yet some hours to live, if the surgeon does not relieve it by operating before death ensues, and thus enable it to escape those dreadful agonies incident to a death by suffocation.

It is not the operation that kills the patient, but the postponement of it until from the extreme exhaustion and weakness, the patient sinks under it from an insufficient decarbonization of the blood. The chief point in cases of this kind, where an operation is inevitable, is not to wait until the lungs have become œdematous, and there are not a sufficient number of air cells left in the lungs to arteriate the blood, thereby preventing a comatose condition of the brain center at the origin of the pneumogastric in the medulla-oblongata. Hence, if this is the case, death is more liable to ensue from the effects of anæsthetics; the respiratory efforts being too feeble to exhale the drug, the patient therefore dies from genuine narcosis. These are the causes of the great mortality in the statistics of this operation, hence the prejudice against it—all from too much postponement. When the surgeon has diagnosed his case, he should operate at once, courageously and accurately; do it with hope, nerve and dexterity, and his reward will surely come—the sweetest reward to an honest physician's heart, the dearest possession of the true and overtasked surgeon, viz.: the delightful knowledge and consciousness that he has been instrumental in saving the life of another fellow mortal.

JORDAN STATION, KY., July, 1878.

A Case of Tabes Dorsalis Spasmodica.

REPORTED TO THE ACADEMY BY DR. J. G. JOHNSON, PHYSICIAN TO MICHIGAN RETREAT FOR THE INSANE.

I have the pleasure of presenting to the society a form of spinal disease to which attention has been but lately directed, by Profs. Erb, of Heidelberg; Charcot, of Paris; and Berger, of Breslau.

The underlying pathological change is considered to be sclerosis of the lateral column of the cord; and Prof. Charcot has proposed the name tabes dorsalis spasmodica, contrasting it thus with tabes dorsalis ataxica, in which the lesion is sclerosis of the posterior columns.

The symptoms affect the voluntary muscular system alone. There are no alterations of sensibility, no want of co-ordinating power, and no head symptoms. The bladder and rectum are not interfered with, and the sexual instinct does not cease to be able to gratify itself. Moreover, there is no wasting of the muscles, and the general health does not suffer.

After such an array of negatives, it remains for us to affirm what the symptoms really are, which have escaped the watchful eyes of nosologists all these many years.

I think I can not do better than translate and condense somewhat from Charcot's history of the disease in his "Maladies du Systeme Nerveux," afterwards presenting my patient as illustrating an early stage in this affection:

"The first, and for some time, the only symptom, consists in a state of paresis, affecting one or both legs, and which has only the effect, at first, of rendering walking somewhat difficult, especially in the morning on getting out of bed. The patients describe the situation in saying that they are quickly fatigued, that their limbs are heavy, and that in walking they drag the leg.

"After a time, when in a horizontal position—in bed for example—the limbs affected commence to stiffen out paroxysmally, especially in the direction of extension and adduction. They become for the time being like bars, rigid and inflexible. The patients are also frequently taken, often without any appreciable cause, with a trembling (trepidation), which at times is confined to the affected members, and again may extend to the whole body.

"The physician can provoke this trembling at will by raising the patient's foot by the ends of his toes.

"The rigidity and the trembling also is more marked when the patient rises and attempts to stand. Walking becomes more and more difficult as the disease progresses, but it is only after many years that it becomes altogether impossible.

"Later on in the disease, the lower limbs, rigid in all their articulations, energetically applied one against the other, can only be separated by a vigorous effort.

"This circumstance, with the peculiar trembling of the extremities, gives rise to the characteristic gait. This has been very exactly described by M. Ollivier d'Augers: 'Each foot is detached with difficulty from the ground, and in the effort which the patient makes to raise it entirely, and carry it forward, the body is straightened up and thrown backward as if to counterbalance the weight of the leg, which is shaken by an involuntary trembling before it is placed again upon the ground. In these movements of progression, sometimes the point of the foot is lowered and dragged more or less against the ground, before being detached from it. Again, it is briskly raised at the same time that the foot is thrown forward.'

"Some patients can only walk, even with the aid of a cane, when the head and body are thrown backwards to such an extent as to appear as though affected with tetanus.

"In the later stages of the disease, when the patient has become incapable of standing and walking, and is confined to a bed or lounge, the motor impotence evidently depends upon the contraction, which becomes extreme and permanent, and maintains the limbs in the position of forced extension and adduction.

"The attacks of trembling also continue to recur in an excessive degree. It is even exalted sometimes to such an extent as to determine in the lower limbs veritable convulsive attacks, of which the denomination, spinal epilepsy, gives a sufficiently good idea."

The disease appears to manifest itself generally between the ages of 30 and 40 years. It is rather more frequent among men than women. It is not a disease of frequent occurrence. The causes are not known, but cold and dampness seem to have their influence in some cases.

Its evolution is, in the main, progressive, but eminently slow. It is not rare, however, to find cases in which, after having reached a certain degree, the disease remains stationary for several months, or years even.

Frequently limited during the whole of its course to the legs, the disease sometimes extends to the arms.

The sacro-lumbar muscles and those of the abdomen are also sometimes affected. The general health is spared indefinitely. The nutrition of the parts affected, even after the patient has been confined to his bed for years, continues good, and there is no tendency to the formation of bed sores.

It does not appear, in fact, that the disease could ever of itself bring about a fatal termination.

As regards treatment, bromides control the trembling and diminish the force of the contractions, but only during the direct effect of the medicines. Prof. Charcot reports hydrotherapy as being without any beneficial effect whatever. Dr. Erb reports a case of cure by the use of the constant current of electricity.

Our patient, whom you see before you, John McD., æt. 44, bar-tender, has had some weakness and stiffness in his legs for years. Trembling has also been of frequent occurrence for a like period.

About two years ago, he began to be seriously incommoded in his business, and about 18 months since he had to give it up entirely. Seven weeks ago he came under my care, in a sufficiently miserable condition. His legs were so stiff, that they could only be brought forward in attempting to walk, by throwing the upper part of the body backward. There was also such strong adduction, that the knees could scarcely be made to pass each other.

Attempting to walk, or even while standing, he was frequently taken with trembling, so violent, that in the absence of anything to seize hold of, he would fall to the ground.

He had also another symptom, which I do not find mentioned in any authorities upon the subject, viz., an entire absence of visible perspiration from the lower half of his body and legs, even on warm days when the upper half was covered with it.

He had no other symptoms of nervous disease.

His general health was and always had been excellent.

His habits are good; he is married, and has healthy children.

He has had an application, of about 20 minutes' duration, of the constant current from 40 cells of Hill's gravity battery every other day from the time he first came to me to the present.

His condition, as he will very readily testify, has been v much improved.

He can now walk quite briskly, and long distances with the aid of a cane, although he still carries one to steady h self with in case he should be taken with trembling in street.

This last still occurs occasionally, but is not very severe, a generally only in the morning, when he first gets out of b

He has resumed his business, and I am in hopes of so reporting a perfect cure.

I bring him before you to-night, whilst the characterist gait is still manifest.

The Non-Instrumental Aids to Labor.

READ BEFORE THE ACADEMY OF MEDICINE BY F. A. SPALDING, M. D.,
LECTURER ON DERMATOLOGY, AND INSTRUCTOR IN OBSTETRICS
IN DETROIT MEDICAL COLLEGE.

The practice of medicine has most unmistakably its fashions, and its extremists, wedded as they are to some favorite theory, unwittingly it may be, but absolutely, retard its progress. The particular practice to which I especially desire to call the attention of the profession, is the present prevailing passion for forceps delivery, to the exclusion, or at least neglect, of other measures equally as efficient in shortening the duration of labor.

The use of the forceps carries with it a degree of fascination, and gives withal an exhibit of apparent skill on the part of the practitioner; and so it happens that the advocates of this enticing fashion have multiplied, until, if we were to judge by the professional journalistic literature of the day, we might almost conclude that the profession had been seized by one vast monomania upon the subject. Now I submit that that sort of ambition for "operating" is always out of place in the medical profession. But am I overstating the facts in the case if I say that probably one-third of all the cases of child-birth at the present day are "operated" upon and delivered with the forceps? If so, I stand reproved.

Now, I desire it particularly understood at the outset, that no one in the profession can have a higher appreciation of the value of the obstetrical forceps than myself. In cases of exhaustion, convulsions, placenta prævia and the like, demanding immediate delivery, I regard the forceps in skillful hands as a veritable God-send to the dying patient, and their prompt employment in such cases may save life, where delay would be disastrous. But it is their routine and reckless use which I regard as unwarrantable and open to censure, and for the following reasons, viz.:

1. Their use is not without its dangers, being oftentimes fraught with mischief to the mother, and not infrequently proving disastrous to the child.

2. Other and safer means which can be employed during the first stage of labor will diminish the average time of labor much more, and render the forceps unnecessary, except in extreme cases.

First, as regards mischief to the mother: By far the larger proportion of cases of rupture of the perinæum, as well as those most severe, are the result of forceps delivery; at least such has been my observation, and I believe it is generally conceded. Again, the ratio of cases of post-partum hemorrhage appears to be greater after delivery with the forceps—explained, perhaps, by the sudden surprise, as it were, of the uterus upon having its contents suddenly evacuated by traction; it fails to contract as when by its own contraction it has expelled the child.

But turning to the child, we have dangers not a few, caused directly by the forceps, to say nothing of those cases which are killed outright by direct compression of the head; and even if deformities were to be overlooked, there remains what to me would appear to be a far greater evil, one which I apprehend has not received the consideration from the profession which its importance deserves; viz., the danger of inducing permanent mental and nervous derangement from mechanical pressure brought directly to bear upon the great nerve center, the brain. I know that inasmuch as nature has provided for a certain degree of overlapping of the cranial bones, compression has been considered harmless, but there must be a limit to this compression; and if it be true that blows and injuries upon the head in adult life, are followed by epilepsy, mental derangement, etc., what guarantee have I that undue compression of the head at the time of birth is exempted therefrom?

So impressed am I with the truth of this, that I can not omit suggesting at least a possible connection between the alarming increase of nervous diseases of late years, and this furore for forceps delivery.

As regards my second point: What other means can be employed to diminish the time of labor, and thereby its suffering? As prominent in efficacy among such means, I would enumerate: 1st. Firm and persistent pressure, made upon the uterine neck *with every pain*. 2d. The application of belladonna to the uterine neck. 3d. The early rupture of the membranes. 4th. The proper use of uterine motor stimulants. 5th. A proper regard for the position of the patient.

I am in the habit of regarding a labor as fairly commenced when with uterine pains the uterine neck is dilated to the size of a quarter dollar.

My experience has made me positive, that from this time forward, by the employment of the measures above indicated, the duration of the first stage of labor can be diminished *at least one half*. I would therefore stimulate uterine action by making decided pressure with the finger upon the uterine neck upward under the pubic arcade, with every pain, which has the effect not only to increase most decidedly the force of the pains, but not unfrequently in cases where there is marked inactivity of the uterus, pains can be excited at will by this procedure. Belladonna also is of undoubted utility in assisting relaxation, and thereby facilitating dilatation of the uterine neck. If belladonna ointment be used to lubricate the finger, we secure thereby its continuous effect. If now as soon as the os has become dilated to the size of a half dollar, the amniotic liquid be evacuated by rupture of the membranes, the uterus will after a few moments of rest, contract with increased force, its previous distention preventing its complete action, just as a bladder is semi-paralyzed by over distention.

Should there exist a degree of uterine inertia calling for farther stimulation, we may now administer a uterine motor stimulant, perhaps a cup of very strong coffee, which has this effect; even a drink of ice-water will have the effect. Alcoholic stimulation will almost always do it; but undoubtedly the most reliable agents, yet ascertained, are quinine and the old stand-by, secale cornutum or ergot of rye, which I am free to admit, I am in the habit of using. I am aware that there is a strong antipathy in the minds of many against the use of ergot; they claiming that there is danger of lacerating the perineum, and causing still-births as the result of too violent pains produced.

I simply reply that it is no argument against the proper use of morphine, for instance, that while you were endeavoring to overcome an attack of colic it would be possible to give enough to kill your patient. You are supposed to give it in *proper* and *safe* doses, and so with ergot. Squibb's fluid extract of ergot I have found generally reliable, if fresh. If two-thirds of a teaspoonful is given it will act in from one-half to three-fourths of an hour; if not it may be safely repeated. My rule is then, give enough to produce the desired effect and then stop.

I mentioned also position of the patient as a point to be looked after, for it will sometimes happen with a patient lying for instance in a twisted position, half upon the back and half upon the side, that rotation of the head in the pelvic concavity will be prevented and the action of the uterus for a long time rendered unavailing, a condition of things which a change of position will rectify at once.

It will be seen that by the employment of the above means we have rendered valuable assistance to our patient *from the very commencement of her labor*, and it is not until now, when the os uteri is fully dilated, that it is possible to render any assistance whatever with the forceps. But the previous and continous stimulation of the uterus which we have excited will be continued, and unless there be a serious dispropor between the head of the child and the pelvis of the mo the remainder of her labor will be very brief. So that un adjustment of a malposition is required, or a dispropor exists, or the occurrence of some complication, as convulsi exhaustion, or hemorrhage, rendering a few minutes valu the use of the forceps is unnecessary.

In verification of what I have claimed I may be permi to state that in the last 100 consecutive cases of confinem which I have conducted, I have not used the forceps on although encountering the same variety of cases as are or narily considered as justifying the use of the forceps.

Furthermore, the *average time* in which I have been engaged is less than *two* hours, the longest being four hours.

Mr. President—While my own experience has proven to my satisfaction the truth of the principles herein stated, I have laid no particular claim to originality. I have simply attempted to drag up from their dormant slumber a few practical truths, already well known but unused to the extent which they deserve.

Let us not, when dealing with life, death and suffering, allow our fondness for operating to prevent us from giving our patients the benefit of *all* that is known to be practical for the relief of their suffering.

Conservative surgery is the order of the day; we no longer estimate a surgeon's skill by the number of limbs which he has sacrificed, but rather by the number saved. If this is an indication of progress in surgery, how long must we wait for obstetricians to fall into line and cease to pride themselves upon their increasing ratio of forceps deliveries?

The two medical schools at Indianapolis, Ind., have ceased to exist as such, and the two faculties have combined to make one new college, called "The Medical College of Indiana," a department of Butler University. This is well done, and we wish that other medical schools could be induced to unite, and give us fewer schools, but better.

Report of Committee on Hygiene Made to Calhoun County Medical Society.

BY DR. J. H. KELLOGG.

The chairman of your committee on hygiene not having been able to communicate with other members of the committee, would submit the following as a partial report:

One of the growing tendencies of the age is toward a widening of the physician's sphere of usefulness.

The medical man of to-day is not confined within those narrow limits which trammeled the progress and dwarfed the development of his predecessors, a few centuries ago. The physician is no longer looked upon simply as a medicine man, or nurse, to be sent for in times of illness, and quite forgotten at all other times; but, rather, is regarded in a broader and nobler light as the guardian of the people's health.

The prevention of disease is coming to be looked upon as of even far greater importance than the simple cure of disease.

The discovery of the material origin of disease, and the resultant discovery of the possibility of removing the material cause of many of the most fatal maladies which afflict the human race, has opened up to medical men a department of medical science of far greater utility and importance than all the knowledge which they had previously possessed.

May we not ask ourselves, with profit, the questions, Are we each keeping pace with the spirit of the age? Surrounded with difficulties, beset with multitudinous cares and responsibilities, harassed with routine duties, and the exigencies of the struggle for existence, which we well know results invariably in the "survival of the fittest"—in some sense fittest, though by no means always the noblest—amid all these distractions, are we not too apt to allow ourselves to fall into the ruts of common practice, and pass along forgetful of the best and noblest aims and privileges of the profession which we all love and desire to honor?

The practicing physician can do more to conserve the health of the community than can all the State boards of health, City boards and health officers combined. He meets the people in their houses, where the evil chiefly lies. He sees in the numerous cases of illness which come under his care the effects of the violation of nature's laws. Taking each individual case as a text, he can preach a sermon to the patient and his friends which no amount of learning, of prestige, of eloquence, could make more effective.

Is it not a duty which the physician owes to his fellow-men, as a philanthropist, to take a practical interest in the subject of preventive medicine; to make it a distinct and prominent part of his daily work to teach his patients how to keep well; to make them intelligent on the subjects of disinfection, ventilation, dietetics, clothing and other matters pertaining to hygiene?

In view of these considerations, we would respectfully offer the following suggestions:

1. That every medical man ought to make himself thoroughly familiar with every means for the prevention of disease.

2. That all physicians should do all in their power to enlighten their patients on these subjects.

3. If in harmony with the wishes of the Association, we would suggest that a committee be appointed by the president to prepare short articles of a popular and practical character on the subject of hygiene—such subjects being of a character appropriate to the season of the year—and secure the publication of the same in our county papers, so far as may be done without incurring expense to the Society.

At the request of the Lansing Board of Health, Prof. R. C. Kedzie has drawn up a series of rules to govern that body in its management of slaughter-houses, that the latter may do no harm to the senses or health of the inhabitants in that town. These are so excellent that all boards will do well to obtain a copy to guide them in adopting the regulations needed in their respective towns.

Reports of Societies.

Calhoun County Medical Association.

The Calhoun County Medical Association met at Homer, on Tuesday, June 25th, Edward Cox, M. D., the president, in the chair.

Dr. James Higby, of Homer, was elected a member.

The chairman of Committee on "Public Health and Hygiene," Dr. J. H. Kellogg, made a report. (See next issue of LANCET.)

Dr. Stoddard, chairman of Committee on "Epidemics and Endemics," reported no diseases of an epidemical or endemical character in the county.

The chairman called on Dr. Tomlinson to report some fatal cases of diphtheria occurring in Barry county.

Dr. Tomlinson said he saw them but once. Three children were aged respectively about 14, 12 and 3. The eldest had been sick two weeks, and as far as diphtheritic symptoms were concerned, seemed convalescent; pulse, 80; temperature, 98; respiration, normal; stomach very irritable; no medicine or nourishment could be retained; ordered sub-nitrate of bismuth to quiet stomach, with nourishing enema, food by the natural way as soon as irritability ceases. Expressed a favorable prognosis; child died within twenty-four hours. The other cases had a very severe form of diphtheria.

Dr. Foote—I can add nothing of interest, except it be something of the early treatment of the first fatal case. This boy had been treated by lobelia emetics; the consequent hyperæmia of the mucous membrane destroyed the integrity of the stomach, and, with the blood poison, predisposed the mucous membrane of the stomach to take on diphtheritic ulcerative inflammation. The child died of collapse.

Dr. Cox—Two of the children had died, and the third was moribund; the fourth was in a fair way to recover. I endeavored to ascertain the cause. I found the family lived in a region of heavy clay soil, in a fine dwelling, and apparently surrounded by good sanitary influences. I learned, however, that they used in the winter water from a well located in the barn-yard, while in the summer they could not use it, as it smelt badly, but used water from a drive well located at the house; the reason for not using the water from the well at the house all the time being an irony taste from the iron pipes. I had hoped to have been able to present a chemical analysis, but can not. I shall procure a sample of the water from the barn-yard well, and hand it to Professor Kedzie, and report the result. It is my opinion that the use of that water was an exciting cause of this fatal form of disease. There had been no cases within fifteen or twenty miles. It spread to the family of the brother, who went back and forth—who lost two children—and to several other families.

Dr. Stoddard, of Albion, remarked that the reports of Drs. Tomlinson, Cox and Foote were very interesting, and that they also brought to our notice a most important truth of modern medical investigation, and that is, the part that filth plays in the production of epidemics and endemics of diseases dangerous to public health. As in the case of the public schools at Toledo, so in this case without doubt, the immediate or provoking cause of the epidemic, was the impure drinking water used by the family. If modern medical science teaches anything, it is this, that pure drinking water, plain food, cleanly surroundings, and proper exercise, are the greatest factors in the preserving of good health, and the banishing of all epidemics from our midst.

In this particular case the impure drinking water so poisoned and debilitated the systems of the persons involved in the case, that they could no longer resist the invisible poison of diphtheria more or less prevalent everywhere, but especially so at that time, and thus the endemic occurred. It is necessary at all times to keep the distinction clear in our minds, between the immediate or exciting, and the more permanent causes of diseases. The former determines the *time* of the attack, the latter more often its *character*.

Dr. Montgomery differed somewhat from Dr. Stoddard, inasmuch as he was of the opinion that diphtheria, as well as other infectious diseases, might, and did often originate *de novo*.

The report of Dr. Stoddard was accepted.

Dr. Foote, of Battle Creek, read a report on "Cold Water Dressings," it being a subject assigned to him by the chairman. (See next issue of THE LANCET.)

Dr. John P. Stoddard, of Albion, then read a paper entitled "*Diabetes Mellitus*," a subject which had been assigned him by the chairman, and of which the following is an imperfect synopsis:

As introductory to the subject, the doctor quoted the definition of diabetes mellitus, as given by Aitken, perhaps the most comprehensive and perfect ever given, and yet fully in accordance with latest investigations:

"Diabetes mellitus is a constitutional disease, obviously produced through errors in the processes of assimilation, either in the stomach, in the solid organs, or in the blood, and is characterized especially by an excessive discharge of urine, more or less constantly saccharine, excessive thirst, and associated with progressive emaciation of the body."—*Aitken's Practice*, Vol. I, p. 211.

1. *History of the Disease.*—Perhaps in the whole range of known diseases, there is no one which has so extensive a bibliography as diabetes. He who is curious in such matters, is referred to *Ziemssen's Cyclopedia of Practical Medicine*, Vol. XVII, p. 851, *et seq.*, where Senator gives a partial list only of treatises on this subject, but which would require no ordinary life-time to read.

Although diabetes mellitus was not described and known in its true light till the time of Dr. Willis, who lived in the reign of Charles II of England, the general or inclusive affection of diabetes was referred to and treated of by the most ancient medical writers. The earliest mention of this disease is by Celsus, who flourished during the reign of Augustus Cæsar. Afterwards Galen, Aretæus and Trallian treated of the disease at much greater length. All these writers described this affection as a species of water flux, or lientery, from the rapidity with which the fluids and solids of the body seemed to be converted into a crude and liquid mass, and hurried forward to the kidneys—at the same time it was characterized by a canine appetite, from the voracity and thirst, which are its peculiar symptoms. They supposed a high degree of appetency, or irritation to exist in the substance of the kidneys, in consequence of which, it attracts the matter of the urine with great vehemence from the vena cava; the pores and orifices of the gland were considered in a state of great atony, or relaxation, so that the same matter thus attracted flowed off unchanged as soon as it reached the kidneys. In short, these writers considered diabetes a purely kidney affection, with perhaps the exception of Aretæus, who thought the stomach was also primarily at fault. This general opinion was held to the time of Paracelsus and Sylvius, who referred the seat of the disease to the abnormal condition of the blood, or its constituents. But it is strange that up to the middle of the 17th century, the whole medical world—at least the western countries—had no suspicion that diabetic urine contained sugar. However, according to the writer Christie, the Indian physicians seem to have been acquainted from very remote times, with a disease, accompanied with sweet-tasting urine. And it seems remarkable indeed, that the long list of ancient and mediæval, and even modern writers, never noticed the sweetness of diabetic urine. All the western world first learned this peculiarity from Dr. Thomas Willis, who first communicated this fact to the profession in 1674. But sugar was not actually separated from the urine till more than a century later, when Dr. Crowley in 1778 displayed the first sugar ever taken from a diabetic patient. After this date the general affection of diabetes was separated into two distinct diseases, diabetes mellitus and diabetes insipidus, and the distinctions between the two were sharply drawn. Before the close of the 18th century, an immense advance was made by still another Englishman, Dr. John Rollo, who proved the injurious effects of most vegetable foods, which he taught were converted into sugar by the abnormal gastric secretions. He was the first to introduce an exclusively meat diet in the treatment of this complaint. But investigations did not stop here. The science of chemistry made vast strides during the first half of the present century, and its application to medicine has been of no slight advantage to our knowledge of diabetes. It was further found that the blood of diabetic patients contained sugar, and in 1835 Ambrosiani succeeded in separating it from the circulation.

But with all this, the ultimate cause of the disease was no better understood, and to-day the profession are unable to definitely state what organ or process is at fault.

2. *Ætiology.*—Diabetes mellitus is not a frequent disease. Of late it is more often noticed than formerly, and perhaps because more easily detected by modern tests than was possible to the ancients. But yet, making all due allowances, it is probably more frequent in our modern life. It prevails more or less in all portions of the world, and does not seem to be influenced by climate. . But it seems very rare in Russia, Holland, Brazil, and the West Indies, and more frequent in Ceylon and India. Heredity seems to be a prime factor in its occurrence. Obesity seems to predispose to the trouble. Anything that breaks down the nervous system favors the same diseased state. It is not confined to any age, or either sex, but more common in those of middle age, and occurs oftener with males. Errors in diet seem to have a notable effect in producing the complaint. Without further discussing causes, it may be affirmed again, that the exact cause of the disease, the organs and functions which are at fault, are not fully known to the medical science of to-day. But the whole drift of recent investigations points unmistakably to lesions in the nervous system, and notably to the sympathetic. Readers are referred to *Ziemssen's Cyclopedia of the Practice of Medicine*, pp. 964 and 969 inclusive, and also to the *Medical Record* for 1878, p. 408, where may be found a record of the *post-mortems* of a number of cases made by Dr. Poniklo, of the University of Cracow. He refers

emphatically to lesions of the sympathetic as the undoub cause. Claude Bernard's investigations also support such opinion.

The fact that the great majority of diabetic cases occu persons who have broken down or overworked nervous tems, or who are more or less subject to epilepsy and kin diseases, goes far to increase the probability that the ner system is at fault. Further investigations will yet clear this enigma of medical science, and perhaps enable the p sician of the future to cure this all but incurable disease to-day.

3. *Symptoms and Diagnosis* will be omitted in this synopsis, as almost any treatise on practice contains what is correct, and nothing new can now be added.

4. *Prognosis* will not be dwelt upon, since nothing new can be said in regard to it; recent investigations and studies have made it no more favorable than it was a century ago. *It is always grave.*

5. *Treatment.*—At present this is almost entirely dietetic. Drugs may modify and palliate, but so far are not eminently curative. It is a sad fact when the nervous system—that is, the substance of either brain or nerve—is broken down, it seems entirely beyond the power of medical science to repair the injury. At present, each case must be made a severe and exhaustive study by itself. Occasionally we can bring to our aid some plan or remedy that will put off for months, or even years, the evil day that must surely come. The physician, in this disease, turns with anxious eye to what the future may bring forth of good for suffering humanity. The true management of this relentless disease may some day be given to us, but meanwhile, if one of these unfortunate cases comes into our hands, study up the case with exhaustive care, seek to fulfill every indication; do nothing to waste or dissipate strength or energy, conserve all the vital forces, but don't put an overweening trust in drugs, or believe that *you* can cure what the brightest lights of past ages could not.

Dr. O. C. Lyon had no written report on his subject, but would make a verbal report on "Erysipelas." "I have had a good many cases of erysipelas recently. The point to which I wish to call the attention of the members of the Association is the use of the quiniæ sulphas externally of the strength of 20 grains to the ounce, combined with tincture of iron; this treatment cuts short the disease. I would like to know if any member has had any experience with the remedy; and would also inquire what was the best application to make to the poison of sumach?"

Dr. Amos Crosby, of Albion, said: "I must confess that I have not seemed to get very decided results from the administration of the muriated tincture of iron in erysipelas. I place more reliance upon quinine than any other single remedy. I give quinine freely in the cases where there is periodicity in fever and other symptoms of the disease. In this as in other diseases, which we are called upon to treat, we must study the habits of the disease, if we expect to meet with success. I have sometimes given from three to four grains of quinine every hour for twelve or fourteen hours, then the same dose at longer intervals, with the best seeming results. After from twelve to twenty-four hours, the violence of the symptoms would have passed, and my patient would be convalescent. I believe that in many cases at least an attack of erysipelas can be cut short by appropriate treatment. For a local application to prevent the spread of the disease, I have more confidence in a strong solution of nitrate of silver than in any of the remedies that have been mentioned. I would use, in some cases, a solution of 60 grains to the ounce of water. I would not use the nitrate of silver in all cases."

In response to the remarks of Dr. Crosby, Dr. Stoddard said that he considered erysipelas to be both an infectious disease, and one dependent very much upon debility. In treatment, he thought two cardinal points should be observed—first, support the patient, and, second, confine, or circumscribe the cuticular manifestation of the disease. For the first he would use iron and quinine; for the second tinct. iodine, or sol. argent, nitratis fortis, by applying it in wide bands around the affected parts. To relieve pain would give opiates as was necessary, but would use cooling and astringent lotions to the painful surfaces. Of late in one severe case of facial erysipelas, he had used lotions of ice water with highly beneficial effect, and he latterly did not have the same fear of using cold as formerly. In giving quinine he used it simply as a tonic, not as an antiperiodic, unless he was sure malarial poison was a factor in the disease. He was aware that there were physicians, who, like the erratic doctor in Charles Reade's "Hard Cash," think that all diseases are periodic, that all affections have their daily rise and fall; and so should be treated with antiperiodics, and hence the administration of quinine is always timely. He confessed himself not to be one of that number, although most sick people felt best at morning, and worse at or near night. He thought we as physicians should leave more to nature, and study closer the laws of the self limitations of disease.

Dr. Fairfield, of Battle Creek, said that at the sanitarium, they had had quite a number of cases of erysipelas lately, and had used ice bags with great benefit, usually alternately with hot applications, notwithstanding their prohibition by Erichsen. No unpleasant symptoms occurred, and, we believe, the treatment abridged the duration of all cases.

Dr. O. S. Phelps, of Homer, read an essay on "Criminal Abortion." (See next issue of The Lancet.)

Dr. Phelps said lime-water and linseed oil was good for poison of sumach.

Dr. Hauxhurst read clinical reports of a number of cases of neuralgia.

Dr. Fairfield exhibited a morbid specimen of fibrous tumor of the hand amputated at the sanitarium.

A resolution was passed requesting the doctor to prepare a report upon the history and peculiarities of the case.

The discussion of the regular topic was postponed for lack of time.

The following resolution was introduced by Dr. J. H. Montgomery, of Marshall:

"*Whereas*, It is incumbent upon us, as conservators of the public health, to do all in our power to check the alarming prevalence of criminal abortion;

"*Resolved*, That we will report to the prosecuting attorney of this county every case of the kind that may come to our knowledge." Carried.

The next regular meeting will be held at Albion on the first Tuesday in September.

The Association adjourned.

L. A. FOOTE,
Secretary.

Detroit Academy of Medicine.

Dr. Chapoton reported a case of gangrene of the lung:

Mr. S., æt. 34, American, married eight years. Has never been sick but once before—five years ago, when he had an attack of acute articular rheumatism. Has had a dry cough, occurring five or six times daily, since about the time of his marriage. Trade, polisher in the stove works. On Friday, March 15th, 1878, had several attacks of dizziness while at work. On Saturday, had several more of such intense character that he could not distinguish the wheels of the machinery. But as these feelings soon passed away, he continued at work. Sunday, 17th, he remained on the sofa all day, and on awaking Monday morning, he felt so well that he returned to his factory. But shortly after noon, the attacks of vertigo returned, and in such an intense form, that he was obliged to quit work. On his way home, he was covered with a cold perspiration, and was forced to sit down almost every block. Monday evening he had the severest, and at the same time the last attack of vertigo. His extremities were intensely cold, and at the same moment a severe pain under the left shoulder, passing through to the breast, added to his discomfort. The usual domestic treatment for a severe cold was immediately instituted by the family, and by Tuesday evening he felt so much better that he went to a prescribing druggist and obtained some medicine for his cold. Wednesday, the 19th, his breath became very fetid, and towards evening he raised a little expectoration which tasted as badly as it smelt. From this time onwards he was confined to the house, and as his symptoms continued to grow worse, the family determined on Sunday, the 24th, to call a physician. The doctor immediately gave a fatal prognosis, and as he said that he could do nothing, on the 26th they called in another. He likewise gave a very grave prognosis, and suggested the removal of the patient to St. Mary's Hospital, where the latter came under my care, March 27th. On opening the door of the room, the stench of the atmosphere was almost overpowering. I found the patient having paroxysm after paroxysm, of severe ringing cough; and shortly after my entrance, after particularly long convulsive efforts, during which his face became literally black, he expectorated a greenish-black mass, as large as a hickory nut, whose odor, if possible, was still worse than his breath. His temperature was 101½, and his pulse at 115. I ordered iron, quinine, and chlorate of potash, in large doses; carbolic acid and digitalis, steam, carbolic acid inhalations and whisky. The following evening, I found him in a much easier condition than on the previous day. Temperature 98; pulse 66; breath still of a very gangrenous odor; expectoration likewise, but containing no distinct masses as yesterday, and deposits in layers. Physical examination revealed dullness at both apices, with prolonged expiration. Sub-crepitant rales at both bases. Dullness on mid-axillary line from third interspace to fifth rib, and from axillary border of scapula nearly to line of nipple; all over this space, but particularly at the borders, moist, small rales were heard. I detected nothing very peculiar about the heart, except that the first sound was unusually loud, and seemed to continue into the periods of the second, although no sound of a real bruit was to be heard. He continued improving subjectively for three days, when, April 3d, all his worse symptoms were renewed, and among the pieces which he raised during this day and April 4th, I found, under the microscope, numerous elastic fibers. From the 5th to the 12th he was comparatively comfortable, but he had now lost all appetite on account of the terribly disgusting taste continually in his mouth. The carbolic steam spray had formerly relieved this, but now the spray became so irritating that almost the sight of the atomizer was sufficient to cause vomiting. I was obliged to restrict the number to one inhalation only daily, and, from the 10th to the 21st, almost his entire diet was quinine and whisky. From the 14th, a general bronchitis, brought on probably by the inhalation and the irritation from the severe paroxysmal cough, abated considerably, but the rales on the axillary line became more and more numerous, so that I feared still further trouble. On the 17th the attack came, and it was by far the severest which I saw him experience. There seemed to be no cessation to the cough until the 20th, when, after raising two more large masses, he gradually quieted down and had a good sleep for five hours. From that moment he commenced to improve marvelously; cough and expectoration rapidly diminished; the gangrenous odor disappeared, a ravenous appetite called upon him continually to satisfy its demands, and he soon changed in appearance and weight.

June 1st.—Marked dullness on left side, from second to fifth rib; posteriorly, dullness in supra and infra spinous fossæ, with a tympanitic sound in fifth interspace. Respiration is prolonged at both apices, and jerky on the right, posteriorly, and below on the left bronchial, and very prolonged. Weight, 160 pounds.

Dr. Connor reported a case of psoas abscess that had no relation to diseased bone. The subject of it was a man of unusually good hereditary history, and about forty-five years old. About two and a half years since he suffered from a severe attack of typhoid fever. For a very considerable time business affairs had greatly perplexed him. Last October he over-exerted himself, and as he thought, strained this right side. At any rate, he stated that more or less pain existed constantly somewhere between the lower ribs and pelvis. In November last he was taken down with a remittent fever, which with considerable severity continued for some six or eight weeks. During January he began to suffer from photophobia, and I was desired by the attending physicians, Drs. Jenks and Andrews, to examine his eye with the ophthalmoscope. This I did on several occasions, but aside from his great photophobia the examination was negative. During all the time he had been gradually failing without obvious cause. Shortly afterwards the attending physicians observed a swelling in the posterior part of the body very close to the site of the kidney. This increased in size until it was finally aspirated and a considerable amount of pus evacuated. The opening continued to discharge at intervals till near the time of death. Most careful examinations proved the abscess to be located in the muscles — probably the psoas. In spite of all efforts he gradually sank, and died early in June. A *post-mortem* examination revealed a waxy liver and an abscess beginning beneath and behind the right kidney, and extending into the pelvis. The kidneys and all other organs were as healthy as could be expected in a person dying of starvation combined with pyæmia. At no point did the most careful search reveal any denuded bone as the source of the disease. The walls of the abscess were composed of disintegrating muscular fibers and connective tissue.

While not unknown, such abscesses are certainly infrequent.

Adjourned.

E. A. CHAPOTON,
Secretary.

The cup of tea we drink contains volatile oil, chlorophyl, wax, resin, gum, tannin, theine, extractine, apotheine, albumen, sulphur, phosphorus, chloride of potassium, oxide of iron, carbonate, sulphate and phosphate of lime, carbonate of magnesia and silica—nineteen different agents. [Ours is not complete without casein lactose, glycerin, oleic and other fatty acids, sucrose and, not least important, plenty of *aq. bul.*—ED.]

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

NATURE AND TREATMENT OF INEBRIETY.—George M. Beard, M. D. (*Quarterly Journal of Inebriety*), has an article under the above caption. He classes this disease with the other nervous disease in a group, which includes cerebral irritation, spinal irritation, general neuralgia, sick headache, physical hysteria, hay fever, pathophobia, nervous exhaustion, and nervous dyspepsia.

These diseases are least common in Germany, less rare in France, oftener found in England, but seem to be entirely at home in the northern and eastern parts of the United States. The extremes of heat and cold in the northern States have much to do with the induction of these diseases.

Inebriety has four characteristics, in common with the other neuroses: the automatism of its symptoms, periodicity, transmissibility, and relapsibility. The symptom of drinking to excess is as much beyond the control of the sufferer as is sick headache. Whatever blame attaches to the patient must attach to him when the temptation could have been shunned and successfully resisted. Some inebriates inherit the tendency to the disease, and of course cannot be held personally responsible for the sin of the ancestors.

The treatment of this, as of other nervous diseases, involves two principles:

First. The avoidance of exciting causes.

Secondly. The employment of sedatives and tonics.

The exciting causes to be avoided in treating inebriety are alcohol, nerve-exhausting influences, the most prominent of which are bereavement, business reverses, disappointments in plans of love or ambition, or sudden and violent surprises fortune. The best way for a man to avoid the exciting caus seems to be to enter an asylum, where the constant worry the brain can be reduced to a minimum.

The sedatives and tonics employed are mainly: 1st. Fat. 2d. Phosphorus. 3d. Glycerine. 4th. Electricity.

Nux vomica is also indicated where a sudden breaking off from drink leaves the system debilitated. Coca would seem to be indicated in similar cases, but has not been used enough to enable any conclusion to be reached.

Inebriates should have good healthful surroundings, and plenty of good food, and in good variety.

The mind should be treated also, and much stress is laid on the mental therapeutics.

BELLADONNA A STIMULANT TO THE CIRCULATORY SYSTEM.—R. H. Weber, M. D. (*Philadelphia Medical Times*, July 6, 1878), recommends the use of belladonna in cases of collapse, whether the collapse is caused by opium or cholera morbus, cholera infantum, or true Asiatic cholera; in fact, the doctor thinks that it should form part of the treatment *in all cases of collapse or shock* in which danger threatens from failure of the circulation. The reason on which he bases his preference for this drug in such cases is that belladonna is a strong stimulus to the circulatory and respiratory centers. By the use of belladonna then the doctor would hope to tide over the crisis until nature could reässert herself, and thus save his patient Belladonna added to a diuretic will greatly increase its effect, and cause the kidneys to carry off effusions much more rapidly.

SUICIDE NOT AN EVIDENCE OF INSANITY.—Hon. O. H. Palmer (in the *American Journal of Insanity* for April, 1878), discusses this topic. He says that the diversity of manifestation is immense, unmeasurable and unascertainable. But this does not prove insanity, or derangement of the normal condition of the intellect. Sanity is the normal condition of the mind in all its diversities and variety of character. This is law as well as logic. Notwithstanding this principle is so well established, but few outside of the literature of the courts are found to believe it.

This phase of life and its antagonist, death, is so well understood by life insurance companies, that they try to protect themselves by clauses in their policies exempting the companies from liability in case of suicide of the holder of a policy, and yet how often do the companies fail to protect themselves, because an average jury cannot be made to believe that a man who commits suicide is not insane.

The rulings of the courts plainly establish the doctrine that there is no presumption of law, *prima facie* or otherwise, that self-destruction arises from insanity. To overcome and successfully combat this doctrine in a court, it will be necessary to prove the exception to the general rule.

Now, a feeling of disgust with life may be great enough to cause a man to commit suicide. Where, then, is the insanity? A man, rather than live under the stain of dishonor, may nerve himself to take his own life. Where is the insanity, as a necessity?

From the earliest times men have taken their own lives from one motive or another, and no one who shall read the historical accounts of those men's lives and deaths will for one moment doubt their sanity. The Japanese take themselves off to revenge an insult, because they think they can immediately return to this world as avenging spirits, and bring a ten-fold evil on their enemies. This certainly is not insanity.

In fact, the whole history of suicide, whether in the sporadic form, or in an epidemic, shows that while a man may, in a fit of suicidal mania, take his own life, yet by far the largest number of cases of suicide occur when the subject is in his right mind.

TREATMENT OF SORE NIPPLES.—An exchange recommends the use of a five per cent solution of carbolic acid as an application to sore nipples. It is said to give prompt relief as to the pain, and renders it possible to apply the infant to the breast before the fissures are healed. The nipple should be kept moist with the solution by means of a piece of linen applied to it, and should be washed before the infant is applied to nurse.

HYDROPHOBIA.—R. H. Weber, M. D. (*Philadelphia Medical Times*, June 8, 1878), reports that on March 21st, 1878, he was called to attend a young man whom he found suffering from incipient hydrophobia. The doctor learned that eight weeks previously this young man had *nursed* and taken care of a pet dog that was finally killed to end its sufferings. Some of the saliva from the dog's mouth had fallen on the man's hand, but the man had not been bitten. The patient died in forty-eight hours after the first symptoms of hydrophobia manifested themselves. This is believed to be the first published case in which the human subject has become infected by the virus of hydrophobia without a bite from the animal affected with the disease.

LOCAL MORBID TEMPERATURES.—(*L' Union Medicale*, May 4, 1878.)—M. Peter read before a late meeting of the Academy of Medicine of Paris the results of his researches in local morbid temperatures. The following *résumé* is given by the journal cited:

1. The parietal temperature of the side affected with pleuritis is always higher than the average parietal temperature, which it 97.3 deg. The morbid elevation is from .9 deg.; 1.8 deg.; 3.6 to 6 deg.

2. The temperature rises with the increase of the exudation.

3. The elevation of the parietal temperature decreases during the stationary period of the exudation, that is, when the latter ceases to increase; but, generally, the parietal temperature of the pleuritic side is still from .9 to 2.7 degrees higher than that of the healthy side.

4. Pleuritis not only causes a rise in the parietal temperature of the affected region, but also in that of the opposite side; still, the former is always some tenths of a degree to two degrees higher than the latter.

5. The parietal temperature gradually decreases as spontaneous absorption of the exudate takes place, but it still remains four to five tenths of a degree higher than that of the healthy side. This elevation continues for some time, and explains the possibility of relapse.

6. In pleuritis without exudation the local temperature is less elevated than where exudation takes place, and the fall to normal temperature takes place more rapidly.

7. The absolute elevation of temperature in the affected side is greater than the absolute elevation of the axillary temperature. This local hyperthermia precedes that of the axilla. These two facts demonstrate the dominating influence of the pathological pleuritic process upon the general condition, or at least upon the general temperature.

All the above facts have reference to cases of pleurisy in which thoracentesis was not performed. In connection with those in which operative procedures had taken place, he arrives at the following conclusions:

That the local hyperthermia, following puncture in pleuritis, as well as in ascites, is the result of hyperæmia *a vacuo*.

That, in pleuritis, this mechanical hyperæmia is necessarily added to the anterior inflammatory hyperæmia, against which puncture is absolutely without curative action.

That, thus we have two hyperæmias instead of one; in consequence, then, necessarily results an increased vascular tension of the still inflamed pleura.

That, thus the freshly exuded liquid may be richer in leucocytes and red blood corpuscles; thus is easily conceived the purulent transformation of a fresh exudation, when the original puncture was made in the high febrile period of the pleuritis.

That, this accumulation of hyperæmia, the sudden return of the blood into the pleural cavity, made manifest by the local hyperthermia, explain the syncope, the pulmonary congestion, the consecutive albuminoid expectoration, the pain and the oppression observed in those cases of rapid depletion or of sudden hyperæmia by evacuation materially demonstrated by his researches upon local hyperthermia.

CURE OF SCIATICA BY SUBCUTANEOUS INJECTIONS OF ETHER.—C. G. Comegys, M. D. (*Cincinnati Lancet and Clinic*, July 6th, 1878), treats sciatica by subcutaneous injections of ether behind the great trochanter. The dose is variable, from 15 to 30 drops, and the injection is made in the ordinary way, *i. e.*, superficially, not deep.

This treatment is applicable to typical cases, and gives quick and permanent relief.

RELATION OF OZONE TO DISEASE.—J. F. Baldwin, M. D. (*Ohio Medical Recorder*, April, 1878), concludes after investigation that ozone in the atmosphere cannot by its presence cause disease. While it is admitted that in certain localities an epidemic may be coincident with an unusual portion of ozone in the air, yet the doctor thinks that it cannot be proved that the epidemic is caused by the presence of the ozone.

The only rational belief in regard to ozone seems to be that it influences general health for good or bad only so far as it destroys the products of decomposition. Beyond this all views concerning the action of ozone, as a cause, as a remedy, or as a preventive of disease, rest upon vague and unfounded hypotheses.

Pathology.

PHYSICAL SIGNS OF INTERPLEURAL PATHOLOGICAL PROCESSES.—J. R. Leaming, M. D. (*N. Y. Med. Record*, May 25, 1878), has an article, which, if substantiated, will go far to upset the usually received theories in regard to the various sounds heard in the lungs, or, more accurately, within the chest wall. His positions are supported by cases that have actually occurred.

Notably the first case is one about which there can be no doubt. This patient was under observation at St. Luke's Hospital, for disease of the right chest. After a time the left lung showed signs of disease, and as the case progressed there were mucous rales and gurgles, and notably a loss of strength. This case was looked upon as a case of tubercular phthisis, and was so diagnosed, the rales were of various sizes, and were looked upon as showing that the lung was infiltrated with tubercle, and was becoming honey-combed.

At an autopsy held over this patient subsequently to this diagnosis, it was discovered that there was not any structural change *in* the left lung, but between the pleural surfaces there was a vast amount of plastic exudation, and a small quantity of viscid fluid, and at many points there were firm adhesions. It was concluded that these interpleural deposits had been the only source of the sounds that had been mistaken as the signs of diseased lung. Other cases are stated that prove the same thing, and after ten years the doctor has arrived at the conclusion that the rales are only found or heard at the sight of adhesions, except where mucous rales are heard in the bronchi, distant from the ear, and intermittent, as the mucus collects and is expectorated. The doctor is fully persuaded that those having opportunity may demonstrate the truth of his conclusion, if they will note the locality of rales for the purpose of verifying at autopsies the truth or falsity of his proposition.

[If the doctor is right, and his conclusions seem incontrovertible, then all the rales and bronchi that have hitherto been considered as evidences of pneumonia, bronchitis, capillary bronchitis, œdema of the lung, tuberculosis, cavities, etc., are not interpulmonary signs at all, but simply interpleural sounds, and must be so interpreted, and we are left to find new interpretations for the better understanding of the lungs themselves. We must again open the sealed book, and scan its pages by the light of new experiences before we can fully understand its import.]

PSORIASIS—ITS HISTOLOGY.—A. R. Robinson, M. B., L. R. C. P. & S., Edinburgh (*New York Medical Journal*), says that the views which he has formed of the nature of psoriasis, and its patholoical histoloy, are quite different from the views of other observers.

After carefully examining a great number of sections of skin, taken from persons who were suffering from psoriasis, he has concluded that three things, viz., dilatation of the blood-vessels, transudation of serum, and the presence of white blood corpuscles, make up the sum total of the pathological condition, present in the papillæ during the early stage of this skin disease. The amount of hypertrophy of the papillæ produced by these conditions is very small indeed, and is often more than counterbalanced by the encroachment on them of the Malpighian layer by its hyperplasia. In the deeper portions of the cutis no change is observed in its structures in the earliest stage of the disease, and even in the center of a papule of several days' duration there is nothing abnormal, unless it is a slight dilatation of some of the blood-vessels.

The hair in psoriasis becomes changed from the commencement of disease. The external root-sheath, the structure corresponding to the Malpighian layer of the epidermis, becomes increased in size. There is real hyperplasia, with an extension into the surrounding cutis. This growth occurs principally at the root of the hair, though it is met with along the shaft. Every hair situated within a psoriasis papule has this hyperplasia of its external root-sheath That changes so great as these just mentioned occur in the sheath of the hair bulb, and unassociated with recognizable changes in the blood-vessels or tissues surrounding it, goes far to show that the seat of the disease is in the Malpighian layer.

The sebaceous glands and sweat glands show nothing abnormal. The doctor's opinion is that the hyperæmia is secondary to the hyperplasia of the affected part. All his observations show that psoriasis is not an inflammatory disease of the papillæ or of the upper part of the corium, and it may be called a strictly local disease. It is a hyperplasia of the Malpighian layer of the skin, and can be produced by local irritation, provided the tissue is predisposed to it.

Excretion of Alcohol.—(*Archiv. f. Exper. Pathologie, VI, 287.*)—Prof. Binz, of Bonn, lately re-examined this subject, using Geissler's vaporimeter. With this instrument as little as .05 per cent of alcohol can be detected, if sufficient care is used.

The professor found, as his highest estimate, that a possible six per cent of alcohol may escape by the kidneys, but in some of his determinations he found absolutely no alcohol in the urine; no trace of alcohol could be found in the condensed pulmonary vapor—the common idea to the contrary notwithstanding. The fusel oil and various ethers pass off by the breath, and give the odors that have been commonly attributed to alcohol. Pure alcohol does not pass off from the system by the lungs.

The professor thinks it improbable that alcohol is eliminated by the skin when the lungs do not eliminate it, and concludes that the greater portion of the alcohol is disposed of in the process of tissue change.

Therapeutics.

ATROPINE AND DATURINE.—The *Boston Journal of Chemistry* for August, 1878, says that in 1850 A. Von Planta asserted that atropine and daturine were identical. This assertion led to mischief, for the manufacture of atropia was soon begun from the leaves and seeds of the stramonium. Hence the uncertainty of certain specimens of atropine, for daturine has been found to be less active than atropine, and more uncertain in its action.

Schroff found in 1852 that the medical action of the two alkaloids was similar, but that the atropine was twice as powerful as the daturine. Erhard found that the crystalline forms of some of their salts were different in 1866. Recently Poehl has shown that atropine is optically inactive, while daturine turns polarized light to the left, its specific rotating power being 14.12 degrees. Platinic chloride precipitates the salts of atropine, but not those of daturine. Picric acid, on the contrary, precipitates daturine salts, but not those of atropine.

THE SECRETION OF BILE AS MODIFIED BY VARIOUS MEDICINAL SUBSTANCES.—Dr. Rutherford (*London Med. Examiner*) gives some of the results of his recent experimental researches. The essential conditions of these experiments are, first, that the animal is fasting; that all irregularity of movement by the animal be prevented by curarization and the employment of artificial respiration regulated by a small steam engine; that the cystic duct be secured with a clamp previous to the experiments; that the bile be made to flow into a fine centimeter measure, where its quantity was recorded every quarter of an hour.

Physostigma raises the secretion of bile, but the quantity required is so large that the drug could not be used as a cholagogue. Jaborandi has a slight cholagogue action; menispermin, a resin derived from the yellow parilla, said to have tonic and aperient properties, is not a cholagogue. Baptisin and phytolaccin possess decided stimulant effects on the liver. Benzoic acid, from its insolubility, has only slight influence, but such as it has, is to increase the secretion of bile. The alkaline salts of benzoic acid, on the other hand, have a very marked influence in augmenting the biliary secretion. The sodium salts are, as a rule, more powerful than the corresponding salts of potassium and ammonium. Salicylate of soda is a cholagogue, certain, rapid and powerful in its action. Ammonium phosphate is a powerful cholagogue, without influencing the intestinal glands. Morphia has no effect on the liver, and does not interfere with the action of a cholagogue. Iodide of potassium has no effect on the liver. Hyosciamus and acetate of lead are the only two substances which have been found to lower the secretion of bile without purgation. Calomel diminishes the secretion of bile, but corrosive sublimate increases it.

MACROTIN.—Macrotin, a resinoid obtained from the cimicifuga racemosa, is highly recommended for facilitating parturition, when taken for a month or two before confinement. It is said to render the labors easier than they otherwise would be. Probably the fld. extract of cimicifuga racemosa would fulfill all the indications unless there should be found another principle that would be contra-indicated.

THE EFFECTS OF ALKALIES.—Mialhe (*London Lancet*, May, 1878) makes the following instructive remarks on the influence of the alkalies. He believes that the effect of bicarbonate of soda is to modify the intimate composition of albuminous bodies with which the alkali enters into combination, and in consequence to increase the activity of the phenomena of oxidation, or of vital action, such as endosmose and exosmose, and to modify the excretions. To attain this result, the quantity of alkali needed in different cases varies. The proportion of soda in the system, whether as carbonate or as albuminate, is not always the same. A man who lives in a town, and eats much nitrogenous food, needs a larger dose of alkali, in order to bring the system into the same condition, than the peasant, who eats chiefly bread and vegetables. A loss of acid probably occurs during free perspiration, and hence the condition of the skin should be taken into consideration, for a person who perspires much needs less alkali than one who does not. The greater the amount of exercise the less soda is needed. The higher the temperature the less alkali can be borne, perhaps because the temperature itself has an influence similar to that of forced exercise, and partly on account of its action on the nervous system.

Ophthalmology.

THE EFFECT OF GAS-LIGHT UPON THE EYES. — (*Medical Examiner*, March 28—*Medical News*, May, 1878.)—A report upon the effect of gas-light upon the eyes has recently been laid before the German minister of education by the scientific committee for medical affairs. The conclusions arrived at are that according to present experience gas-light has no prejudicial effect upon the eyes, provided that they are sufficiently protected from its direct action. For this purpose shades and bell-glasses of translucent glass-porcelain are recommended. On the other hand, opaque metallic shades are disapproved of, since, where these are used, the eyes, though themselves in shade, gaze upon a strongly illuminated surface and become dazzled and over-stimulated. On account of the large quantity of heat evolved by gas, the burner should not be too near to the heads of the persons in the room; the heat is liable to cause headache and even congestion of the brain; moreover, the flame should not flicker, as this is often a source of mischief and annoyance. Where there is any particular irritable condition of the eyes, a dark-blue glass will be found advantageous. With these precautions gas may be used without fear of mischief.

Different States of the Pupil—Their Significance.—Dr. Jonathan Hutchinson (*The Brain*) measures the pupil by a perforated plate, such as is used to measure bougies. The adult pupil, in good daylight, corresponds with hole No. 4 when the plate is laid on the cheek of the patient. The pupils of children and young persons are normally larger then those of adults, and in old age still further diminution takes place; allowing for personal peculiarities, the size of the pupil corresponds with the patient's nerve tone in many cases. If the tone be low the pupils are large. In estimating activity, each eye should be examined separately. The observer will find great advantage in wearing, for the moment, spectacles of × 10. The activity of the pupils, speaking generally, diminishes with age, and is greatest with the young and vigorous. When a pupil, which is itself sluggish, on direct exposure responds immediately when the other eye is exposed, we may infer, first, that the irido-motor apparatus is sound, second, that the percipient structures in the second eye are sound, third, that there is some defect in the percipient structures in the first eye. On the other hand, there are cases in which an eye which can see perfectly and enjoys good use of accommodation, yet has a pupil which does not act in the least on alternate shading and exposure of its fellow. In these cases it is clear that there is some interference with the integrity of the motor nerves. The absence of paralysis of the ciliary muscle (cyclopægia) leads to the suggestion of disease of the vaso-motor nerves. If, in addition this absence of iridal susceptibility to influence from the other eye, we have also failure of accommodation, then the triad of symptoms is complete, and we must suspect the lenticular ganglion itself. In destruction of the ciliary ganglion we would have entire paralysis of the dilator of the pupil, the constrictor of the pupil and the ciliary muscle.

The pupil would remain absolutely motionless and the patient be unable to read without glasses. To this condition he gives the name ophthalmoplegia interna.

Prof. A. Graefe (*Arch. of Oph.*) has settled upon the following method as the best for applying the antiseptic method in the extraction of cataract:

He instills atropine the day before operating, and just before the operation washes the eye with a two per cent solution of carbolic acid. The instruments are dipped in absolute alcohol and wiped with soft linen. During the operation the parts are wiped dry with a sponge which has been soaked in the carbolic solution. The operation concluded, the orbital region is covered with sheet linen impregnated with boracic acid crystals, and dipped in a solution of boracic acid. This is now covered with oiled silk and the usual pressure bandage.

SYPHILIS OF THE EYELIDS.—Charles S. Bull, M. A., M. D. (*New York Medical Journal*, March, 1878), thus distinguishes between a chancre of the eyelids and the gumma that has undergone ulceration. If all the signs of a chancre are present, and there is a bubo in front of the ear, and perhaps an enlargement of the parotid gland, then the diagnosis is easy. If the ulcer is on the edge of the lid—has a foul secreting surface and infiltrated margin, with extensive thickening of the lid, but no accompanying glandular enlargements in front of the ear, then the lesion is not chancre but an ulcerated syphilide either papular or tubercular.

EXTRACTION OF A CATARACTOUS LENS BY STRAIGHT INCISION OF THE CORNEA.—J. L. Thompson, M. D. (*American Practitioner*, March, 1878), has lately practiced a straight line incision of the cornea for extraction of the lens instead of Von Graefe's modified linear operation. His knife is a narrow-blade, one and three-tenths inches in length, and one-twentieth of an inch in breadth.

The point of this knife is entered one-fifteenth of an inch external to the apparent corneal margin, and one-ninth of an inch below its summit. There seems to be nothing unusual in this operation until puncture and counter-puncture have been made, when the knife is turned so that the edge looks almost directly forward, and by to-and-fro movements a straight incision is made through the cornea, about one-tenth of an inch below its summit.

The doctor claims that this straight line conduces to greater acuity of vision; that the operation is easier; that there is less danger of loss of the vitreous humor than in those operations nearer the periphery; that there is less danger of cyclitis, or other inflammations of the uveal tract, and that there is less astigmatism from corneal displacement.

Otology.

Labyrinthine Vertigo.—In connection with this subject, Woakes' recent papers (*London Lancet and British Medical Journal*) are of interest, as resting upon new neurological investigations. Thus the labyrinth of the ear derives its arterial blood from an entirely different source from the tympanum. While the latter is supplied by branches of the carotid artery, and discharges its veins into the internal jugular, the labyrinth is supplied entirely from the vertebral artery, and discharges its veins into the superior petrosal sinus. The vertebral artery derives many of its vaso-motor nerves from the inferior cervical ganglion, and these nerves communicate by anastomosing fibers with the brachial plexus. This lower cervical ganglion furnishes the principal inhibitory nerve of the heart, namely the inferior cardiac nerve, and thus this nerve is in close relation with the nerves which regulate the supply of blood to the labyrinth. The brachial plexus is also closely related to the circulation of the labyrinth, for, in addition to the nerve fibers connecting the plexus around the vertebral artery directly with the brachial nerves, are fibers passing to the lybyrinth. Through this connection Woakes explains the fact that gun-shot injuries of the nerves of the upper extremities are followed by vertigo, a phenomenon which does not result from similar injuries of the nerves of the lower extremities. Still another connection of the inferior cervical ganglion is pointed out. A fasciculus is given off from the pneumogastric nerve near the recurrent laryngeal, which passes to the inferior cervical ganglion, and impressions thus proceeding to this ganglion may be transferred to the inhibitory nerves of the vertebral artery, and in this way influence the circulation of the labyrinth.

Thus the inferior cervical ganglion is an organ connecting the upper extremities, heart, stomach, and upper portions of the digestive organs, with the circulation of the labyrinth through the vaso-motor nerves which control this circulation. From any irritation we may have, a wave of diminished inhibition, which, relaxing the walls of the vertebral artery, produces an increased flow of blood to the labyrinth, thus causing pressure on the endo-lymph of that cavity. Physiologically such pressure means dizziness. In this way we may have labyrinthine vertigo without any previous ear disease.

SUBJECTIVE NOISES FROM REDUCED VASCULAR TENSION.—Dr. Richardson ("Diseases of Modern Life") speaking of the functional diseases from the abuse of alcohol, alludes to subjective noises in the ears as one of the symptoms often present with alcoholic dyspepsia, muscæ volitantes, vascular changes in the skin, etc. These noises appearing as ringing or buzzing sounds in the head, sometimes are heard suddenly, and for short intervals, sometimes continue for a long time. He states that they are caused by reduced vascular tension, especially of the internal carotid artery, which passes for nearly an inch through the carotid canal of the petrous bone, in very close relation with all the structures of the ear, but more particularly with the tympanum from which it is separated merely by a remarkably thin osseous wall.

FUNCTIONAL DISEASE OF THE EAR RESULTING FROM THE USE OF TOBACCO.—Dr. Richardson ("Diseases of Modern Life") states that he has no doubt that tobacco produces a functional disease of the ear similar to the functional disease of the eye from the same causes. The specific symptoms affecting the hearing are, first, those of confusion, with an inability to appreciate distinctly sounds that are either very soft, or unusually loud. This inability gives rise to restlessness and uneasiness on the part of the listener, who often asks questions with respect to articulate sounds, which by others present are perfectly and distinctly heard. After a short period, there is a sudden sharp ringing in the ears. This may occur during or after smoking. Sometimes, if attention be carefully paid to the subject, it may be discovered that some external noise, very slight in character—such as the ringing of a distant bell, or the whistling of the wind through a chink, or some far-off musical murmur—has produced the sound that is heard with so much intensity. At other times it comes on apparently without any provocation; the man is reading, walking, eating, or is engaged in some amusement, when suddenly there darts through one or the other ear a sharp shrill drilling ring, which always seems to come from without, and lasts often for two or three minutes at a time. There is no actual pain during this phenomenon, but great annoyance. The ear is not deaf, and both ears are rarely affected at the same moment. If the symptom be very much prolonged, it may be attended with giddiness and nausea; but in the majority of cases, after running through a commencing, an intensified and a declining stage, it abruptly terminates.

Surgery.

SUCCESSFUL REMOVAL OF A SOLID UTERINE FIBROMA WEIGHING SEVENTY POUNDS.—T. Spencer Wells, F. R. C. S., reports, in the *British Medical Journal* for May 11, 1878, the successful removal of a uterine fibroid of seventy pounds weight. It occurred in a single woman who had been a sufferer for ten years.

The operation was performed while the patient was under the influence of chlormethyl. A thymol spray of 1 in 1000 of water was used as the antiseptic, and the dressings were thymol gauze.

The tumor was solid, composed of cells with relatively large nuclei and many of them containing several nucleoli of a type distinctly muscular.

The patient was so well, at the end of a month, as to be able to leave for her home, and was daily gaining strength.

Treatment of Gonorrheal Epididymitis.—F. J. Bumstead M. D. (*American Practitioner*, March, 1878), recommends that absolute rest in a recumbent posture should be enjoined immediately upon the first symptoms of the accession of an epididymitis. In fact, the patient should be undressed and placed in bed. The bowels should be cleared by a cathartic, such as citrate of magnesia. If there is much febrile disturbance, give aconite, support the inflamed testicle, and smear it with:

℞ Ext. belladonnæ	ʒ ij.
Glycerinæ	℥ ss.
Aquæ	℥ j.

M. Moisten also a piece of lint with the same, and apply constantly.

When fluid is found in the tunica vaginalis, resort to the multiple punctures recommended by Velpeau. By so doing you will give immediate relief, and arrest the progress of the disease. This treatment, to which may be added sedatives internally in certain cases, and in cases of delayed resolution careful strapping of the testicle, comprises about all the routine treatment of the author, who is a well-known authority in venereal diseases. The doctor does not indorse as good practice the large incisions through the tunica albuginea and into the substance of the testicle, as practiced by some French and English surgeons.

Treatment of Abscess of the Liver.—J. C. Davis, M. D. (*New York Medical Journal*, June, 1878), has an able article on abscess of the liver. The treatment he recommends is surgical. As soon as the diagnosis is made out, and the presence of pus is established, he would either puncture the abscess with a trocar and cannula, or the aspirating trocar. This plan of treatment has been adopted in Mexico, where it would seem that abscess of the liver is more common than in the United States.

The patient being anæsthetized, he is brought to the edge of the bed or table, and the trocar thrust deeply into the abscess. The trocar is withdrawn from the cannula, and a drainage tube inserted through the cannula. It is better to use a coil, or long piece of tube, and mark the length of about eight inches on the tubing before inserting it. After the cannula is withdrawn, the tube can be cut at the right length. This plan will avoid the slipping of the drainage tube through the cannula into the abscess. Now the drainage tube is slit with a crucial incision, and threads passed through the four ends. The ends are fastened with adhesive plaster, and the threads secured also with plaster.

The abscess is now washed out with warm water, and afterwards with carbolized or iodinized water. The puncture is now covered with carbolized lint and arrangements made to change the dressing at least twice in the twenty-four hours.

If the aspirator is used the process is simplified, but the patient must be watched and the aspiration repeated as soon as the pus again fills the cavity. If the case progresses favorably, the amount of pus aspirated each time will be less than the former aspiration afforded.

The doctor shows that the results of surgical interference are much better than if the abscess is left to itself.

INTRA-VENOUS INJECTION OF MILK AS A SUBSTITUTE FOR TRANSFUSION OF BLOOD.—(*Hospital Gazette*, May 9th, 1878.) —A paper read before the New York Academy of Medicine by Dr. T. Gaillard Thomas again calls practical attention to this subject. Although milk and blood are not homogeneous fluids, still there is not such a marked difference between chyle and milk, and the former is introduced directly into the blood as a normal physiological process. After an experience with seven injections, Dr. T. arrives at the following conclusions:

1. Injection of milk into the circulation in place of blood is a perfectly feasible, safe and legitimate operation.
2. None but healthy milk, drawn from the udder of the cow within a few minutes of its introduction into the circulation, should be employed. It should be tested by litmus paper, and if found to be acid, should be made alkaline by the addition of carbonate of soda.
3. A glass funnel, with a rubber tube, and a suitable pipe attached, was much better and safer than a more elaborate apparatus.
4. Intra-venous injection of milk was an infinitely easier operation to perform than transfusion of blood.
5. Intra-venous injection of milk, like that of blood, was commonly followed by a chill and rapid rise in temperature, but these symptoms soon subsided and were replaced by a great improvement in the general condition of the patient.
6. He would not limit lacteal injections to cases in which profuse and exhaustive hemorrhage had occurred, but recommended their use in certain cases of typhoid fever, pneumonia, cholera, etc.

The method employed to obtain the fresh milk is as follows: a healthy cow is driven into the yard of the hospital, and eight and a half ounces of milk drawn from her udder into a porcelain dish surrounded with warm water is permitted to flow slowly into the median basilic vein of the patient, from a glass funnel, to which is attached a rubber tube and a suitable nozzle, to be introduced into the opening of the blood-vessel.

TREATMENT OF RANULA.—(*The Doctor*, February 1, 1878.)—Dr. Panas injects into the tumor from four to ten drops of a solution of chloride of zinc, one in ten. In one obstinate case, in which a seton and drainage had failed, the injection was repeated with a 20 per cent solution. This treatment he thinks applicable to all varieties of mucous and serous cysts. It has succeeded in a case of sub-hyoid cyst, which had resisted cauterization and the injection of tincture of iodine, but yielded to a single injection of chloride of zinc.

CHRONIC CYSTITIS TREATED BY NITRATE OF SILVER.—Jos. W. Thompson, M. D. (*Louisville Medical News*, June 1st, 1878), states that he treats his patients that are afflicted with this disease, by injections into the urinary bladder of a solution of nitrate of silver varying from two to twenty-five grains to the ounce of water. He begins with the lowest strength, and increases the strength used until the cure is effected. He does not wash out the bladder after the silver wash.

THE EFFECT OF ANÆSTHETICS ON THE HUMAN SYSTEM AS EVIDENCED BY SPECTROSCOPIC EXAMINATIONS.—Dr. S. Waterman (*American Journal of Dental Science*, March, 1878), in an article under the above caption, says that when the blood has once entered into a permanent crystalline union with nitrous oxide gas, we as yet know nothing that will restore it. The doctor further says that it has been shown by Herrman, and verified by Hoppe, Sayler, Gorup, Besanez and W. Preyer, that nitrous exide gas possesses a very keen affinity for oxidized blood, and it will of course follow that the blood must suffer if the gas is respired. The action of the gas is to deprive the blood of its oxygen and enter into a permanent combination with its crystallizable material—the hemato-crystalline. But if the blood is less than normally alkaline, hyponitric acid may be formed, which will change the hemato-crystalline into hematine, and thus become inimical to life.

While chloroform does not exert any chemical change upon the crystallizable parts of the blood, it does exert a mechanical influence by precipitating it from its solution into a gelatinous mass. Another element of fatality in chloroform is its high boiling point, demanding a greater effort of the economy to eliminate it.

Sulphuric ether dissolves out the fatty principles found in the blood in association with the alkaline carbonates, and in this manner breaks up the determined constitution of the blood corpuscles. The redeeming feature of sulphuric ether is its low boiling point, which greatly facilitates the elimination of it from the system, less oxygen being required to complete its elimination than in the case of chloroform.

The doctor concludes that a perfect anæsthetic has not yet been found, but hopes one may be discovered in the near future.

Physiology.

MUSCULATURE—ITS SHARE IN THE PRODUCTION OF ANIMAL HEAT.—It is now well understood that the production of animal heat takes place in nearly every tissue of the body. In some much heat is produced, in others little, and in the same tissue a varying amount at different times.

The product in a given time would be in direct proportion, on the one hand, to the quantity of tissue relative to the entire body weight, and on the other to the oxidation processes occurring in it. Prof. Samuel (*Brit. Med. Jour.*, Aug. 10, 1878) gives the results of some recent experiments more exactly proving the influence of musculature upon the temperature of the body. His method was to eliminate a great portion of it from the total heat production. In a healthy rabbit he tied the two subclavian and two femoral arteries, and then placed the animal in an atmosphere of zero Cent. Its temperature then fell gradually, within from four to eight hours, to 72° Fahr, and it died with all the signs of infrigidation. In another rabbit he made the section of the cervical plexuses and of the sciatic and crural nerves without tying any vessels, and placing it in the same cold medium; exactly the same result ensued. The two operations combined in one and the same animal did not exceed in effect that of either alone. By immersion in ice-water, Samuel could reduce the temperature of small healthy rabbits some degrees, and they endured this abstraction of heat, even with similar wounds, a very long time; but when rabbits, the main arteries of whose extremities were ligatured or nerve trunks divided, were immersed in ice water their temperature sank rapidly and death ensued. If the animals, thus experimented on, were placed in a warm atmosphere, they passed into a febrile temperature, even to 107° Fahr. and upwards, which, however, as soon as the heat discharge, as by cool environment, was again facilitated, sank in like manner as when they were exposed to the same after operation. Thus by eliminating from the total heat production the musculature of the extremities, the warm blooded animal is reduced to the condition of a cold blooded one—rising and falling with the external temperature—the remaining heat producing powers being unable to prevent this result. Thus he concludes that the musculature is the great source of body heat. The researches of Bernard have shown that the consumption of oxygen in a muscle in a state of contraction, was about half the quantity contained in the arterial blood supplied to it, and that in a muscle at rest the consumption amounted to one-third. The proportion of carbonic acid in the venous blood, though less than in the contracting muscle, was still considerable. Thus it is evident that repose of a muscle is not a state of inactivity; clearly even in the resting muscle there is going on a continuous unceasing combustion process. This, according to Samuel, is the silent heat apparatus of the organism.

INFLUENCE OF POSITION OF THE BODY ON THE CIRCULATION OF THE BLOOD.—Prof. Lister (*Brit. Med. Jour.*, July 13, 1878) attempts to show that the elevated position of a limb causes anæmia, not from the gravitation of blood contained in the arteries nor to paralysis of the vaso-motors, but to reflex action caused by the depletion of the veins and the contraction of the muscular fibers of the arteries. Thus, let an elastic bandage be applied to the root of a limb which is kept in an elevated position for a few moments. If now the arm be lowered, the bandage retaining its place, the arm continues bloodless in appearance. Finally, if the arm be raised again and the bandage removed, the redness rapidly returns. As a practical application of this theory Dr. Lister showed that good results may be obtained by the elevation of parts that are the seat of inflammation. Thus, in the treatment of epistaxis, by raising the arms above the head, the *modus operandi* is the production of reflex contraction of the arteries of the arms, and consecutively sympathetic contraction of the arteries of face.

THE PANCREAS—ITS INNERVATION.—MM. Afanassieu and Pawlow (*Pfluger's Archiv.—London Lancet*) have been experimentally studying the secretory nerves of the pancreas, resorting to Heidenhain's plan of using atropine and various stimuli of the secretory activity of the gland. Experiments made by testing the juice, soon after food and during fasting, showed them that the secretion of solid and fluid constituents is due to two different processes subject to two sets of nerves, by one of which the chemical work of the pancreatic cells is governed. On injecting atropine the secretion was always checked, and in some instances completely inhibited. They regard it proved that proper secretory nerves exist; further experiments satisfied them that sensory irritation of the skin was capable of inhibiting the secretion of the pancreas.

THE CONDITIONS OF GROWTH OF VARIOUS ORGANS.—Dr. Bemke (*Centralblatt für die Med.—Lond. Med. Record*) gives the result of numerous observations bearing on the above points. (1) The human heart grows relatively quickly during the first months of life, then rather slowly up to the thirteenth or fourteenth year; it then increases very considerably in volume during the development of puberty, and when this is completed grows more slowly. (2) The "puberty development" of the heart is to be regarded as a very important phase in its development, in regard both to the physiological and pathological occurrences of this period of life. (3) In proportion to the length of the body the heart of the child has normally a volume more than three times less than in the adult. (4) The large arterial vessels are unequally wider in the child than in the adult. They attain their relatively narrowest condition at the time of puberty. The more considerable and rapid the growth in length before this time, the less, as a rule, appears to be the increase in caliber of these vessels.

(5) In consequence of these conditions of the growth of the arteries, the relation between the volume of the heart and the caliber of the arteries, and consequently the blood pressure, is quite different in childhood and after the completion of puberty. The blood pressure in the child's organism must be much less than in the fully developed adult. (6) The pulmonary artery is normally larger than the ascending aorta in childhood. Towards puberty the two vessels are nearly of the same size, and in the adult the pulmonary artery is normally a little narrower than the aorta. From this the blood pressure in the lungs of the child must be greater than in the adult. This condition is probably compensated by the greater growth of the left ventricle as compared with the right, and by a relatively considerable increase of the caliber of the ascending aorta. (7) For the access of puberty, the development of the heart and arteries is of the most essential importance.

Retinal Red in its Relation to the Sensation of Sight.—On page 63 of this volume of the Detroit Lancet, we gave the principal facts then known respecting "vision purple" or as some term it "retinal red." A writer (*Amer. Jour. Med. Sciences* July, 1878) suggests that the retinal red is only the excess of photo-chemical substance, which, in the intervals of active vision, is stored up in the rods for future use. When the sight is being constantly exercised no color can be detected. Probably the only parts of the rods and cones, capable of appreciating light, are the extreme tips in contact with the pigment cells where the retinal red is generated. The large flat ends of the rods would only be susceptible to large impressions as compared with the slender cone points. These last give us precision of detail just as we can more accurately measure a distance with compasses than with fingers. In the eccentric parts of the retina, where the rods outnumber the cones, we get only general impressions of objects. But to obtain accurate definition of parts, we must focus the rays on the crowded cone tips of the fovea centralis. The calculations of Volkmann showed that the smallest retinal image which could be perceived, irrespective of circles of dispersion, was .0002″ in diameter; while according to Schultz the cone tips of the fovea are 4u (.000148″) apart. Behind this region of distinct vision the pigment cells are more abundant than in any other part of the retina, and this insures a constant and ample supply of the visual photo-chemical substance just where it is most wanted at the most used part of the retina. Probably the broad absorbent surfaces of the rods enable them to absorb the red better than the sharp points of the cones.

Further there is retinal red at the macula lutea, as Schmidt Rimpler demonstrated, in *perfectly fresh* human eyes. Capranica, in the case of birds and reptiles, found colored globules in the rods and cones. The reaction of these globules are the same as those relied upon to distinguish *lutrine*, which is found in yolk of eggs, in the yellow bodies of the ovaries, serum of the blood, etc. It seems to be the source of the erythropsin of Boll, and suggests the thought that, even before the eye is created, the substance upon which vision depends is already in existence.

Obstetrics.

QUININE AS AN ECBOLIC.—M. Schuffert, M. D. (*Richmond and Louisville Medical Journal*, April, 1878), positively asserts that quinine will in some cases produce contractile efforts of the uterus and abortion. He has seen it thus in his own practice. He also details cases of exanthema developed by the administration of this drug.

[While we would not dispute the doctor, nor expect that he will not believe his own eyes, we most positively assert that such is not usually the case.—ED.]

PUERPERAL ECLAMPSIA SUCCESSFULLY TREATED BY VERATRUM VIRIDE HYPODERMICALLY.—J. W. Griggs, M. D. (*Atlanta Medical and Surgical Journal*, March, 1878), has treated now four cases of puerperal eclampsia by the injection of the tincture of veratrum viride, diluted with water, under the skin.

In these cases he has been successful, and purposes in future to follow out the same treatment. His dose is from two to four drops, as often as required, to keep the pulse down to about sixty per minute.

THE RESULTS OF CÆSAREAN SECTION AND LAPARO-ELYTROTOMY IN NEW YORK COMPARED.—T. Gaillard Thomas (*N. Y. Med. Journal*, May, 1878), comes to the defense of the operation of laparo-elytrotomy by a comparison of statistics. He finds, after careful inquiry, that only *one* operation of the Cæsarean section, successful to both mother and child, has been performed in New York and its vicinity, since the settlement of Manhattan Island by the Dutch in 1621. Dr. Thomas's statistics are these: at the time of the operation four women and four children were viable, and of these three women and four children survived.

VOMITING OF PREGNANCY.—*Bullet de l'Ac. roy. de med. de Belgique—Lyon Médicale*, April 14, 1876.)—M. Lubelsky publishes a simple method for checking this functional derangement.

As soon as the first sensation of emesis is felt, or even the nausea, which commonly precedes it, M. Lubelsky orders the use of a douche of atomized ether (by Richardson's apparatus) to the epigastric region and the corresponding portion of the vertebral column. The douches should be continued from three to five minutes, or even longer, if the patient feels the better for it, and repeated every three hours. In bad cases, he alternates the use of ether with that of chloroform. According to the doctor, success is almost certain, and the relief immediate.

He adds, that with the same means, he has had considerable success in chorea, asthmatic attacks, and whooping-cough.

CHRONIC INVERSION OF THE UTERUS—ITS TREATMENT.—Mr. Lawson Tait (*British Medical Journal*, June 8th, 1878) has a note describing his treatment of a case of inversion of the uterus of ten weeks' standing. He abandoned the pelvic curve of the older instruments, and had boxwood cups of three different sizes, made each with a straight stem, about six inches long, with notches for the attachment of strings. The largest of these was introduced under ether, and attachment made to the waist by a double thread of elastic, so as to make pressure of about a pound weight.

The next morning the uterus was found reinverted, and inclosing the cup. When the cup was removed, it was found that the complete restoration had not taken place, but after the introduction of a smaller cup, the uterus was completely restored to its normal position.

The *Ohio Medical Recorder* contains the report of a case of inversion of the uterus restored by the introduction and constant wearing of a "Babcock Supporter." This case was reported by A. Richmond, M. D.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Diseased Meats.

Dr. Sozinskey, of Kansas, Mo., in the *Medical and Surgical Reporter* of August 7th, writing on the "Handling and Use of Meats of Diseased Animals," makes the following statements: "Visiting the stock yards during the warm weather one sees at times dozens of cattle which are overcome with the heat, which are sinking, or have sunk, from sun-stroke. What becomes of these unfortunate animals? If they are able to stand on their feet at all, and sometimes when they are not, they are sold to butchers and packers. * * *

"When the hog cholera, Texas cattle fever, or any other serious epizoötic disease, breaks out in a lot of marketable animals, they are disposed of as soon as possible to butchers and packers, and generally at but a slight sacrifice."

Apropos to this subject, we were called upon a few days ago to dress the cut hand of a patient, whose home is in this city, but who for some time has been pursuing his avocation as a butcher in a large abattoir in Chicago. His statement as to the manner in which his wound was received is, in substance, as follows:

"In this abattoir we kill mostly Texas cattle—sometimes as many as six hundred in a day. These cattle, as a rule, are wild and unmanageable, especially when, as is often the case, they have not had food or drink for two days before they come to us. From this cause also they are harder to kill, since (as is well known to every experienced butcher), when an animal has no food in its paunch it is much more tenacious of life. We kill in the following manner: The bullock is first lanced—that is, by a blow from a sharp instrument the muscles which erect the head are divided. This drops the head, and the bullock is no longer able to defend itself. A rope is then thrown around its neck, and it is dragged into the butchery room, where its throat is cut and the blood collected. It is no sooner on the floor than six men, each man having his own particular portion of the work to perform, proceed to skin and disembowel it. While skinning an animal I was cut; *the brute kicked*, and drove the knife into my hand. Yes, sir, *it is quite a common thing to begin to skin these beeves before they are dead*, we are so much hurried with work."

Cattle which are maltreated, especially when they have been deprived of food and drink for twenty-four hours before they are killed, are, in our opinion, unfit for human food. The meat is fevered, and has a peculiar look and odor, which any man accustomed to handle meat can soon distinguish. The meat turned out at this abattoir, and at some of the others of this city (Chicago) is mostly of this character. *It does not keep well*, and is used mostly for packing purposes.

It is impossible, of course, to arrive at an estimate of the amount of disease engendered by the use of such meats, as they are scattered far and wide, but it is well known that they are highly dangerous to their consumers, and are the source of much disease and death. The subject of reform in this connection has often been presented to the notice of the public, and some little effort in this direction has been made.

Inspectors, for instance, have in some cases been appointed, and have accomplished some good. But the pictures presented by Dr. Sozinskey and my patient are so disgusting to all sense of humanity and decency that further effort in this direction would seem imperative. We would recommend the field as a fruitful one to boards of health and societies for prevention of cruelty to animals—to the latter, especially, as it is truly awful to contemplate the terrible extent of suffering to the poor dumb brutes represented in one day's work in one of these extensive abattoirs. H. A. C.

Memoranda.

Twenty-six alkaloids of the cinchona barks are now known.

Dr. Bartels, Professor of Medicine in the University of Kiel, died on June 20th.

Prof. Von Langenbeck, of Berlin, has been given the rank of Major-General.

The greatest age attained by any individual in modern times was one hundred and sixty-nine years.

In Lansing, Mich., the annual death rate in 1,000 for March, 1878, was 6.18; for April, 6.24; for May, 2.41; for June, 6.18; for July, 4.76. Average for five months: 5.15'4.

Dr. J. B. Mattison, writing from Parrish Hall, an institution devoted to the treatment of opium takers, says that in his observation fully eighty per cent of the cases result from an opiate prescription.

The Chinese government has issued an edict forbidding, under penalty of severe punishment, the cultivation of opium. Soldiers and officials are strictly prohibited from smoking under heavy penalties.

Dr. Spencer Wells has performed 900 operations for ovariotomy. Of these there have been 679 total recoveries. Dr. Wm. Farr calculated that the expectation of life gained by these operations was in all 19,691 years.

Dr. J. L. Cleveland (*Cincinnati Lancet and Clinic*, July 20, 1878) reports the removal of a *living* healthy child by Cæsarian section *an hour* after the mother had died.

Karl Rokitansky, Professor of Pathological Anatomy at the University of Vienna, died July 23, 1878, aged 74. He is best known in America by his hand-book on pathological anatomy.

Of the 5,567 cases of suicide reported in France during 1876, among the causes assigned are drunkenness, 1,443, afflicted with incurable diseases 798, domestic broils 633, dread of poverty, 329; less than one-third of the entire list is charged with drunkenness.

There has been a change in the Medical Board of the Cook County Hospital of Chicago, determined by politics rather than the physicians themselves. The *New York Medical Record* makes it a text for a sermon upon the advantages of brotherly love among the medical staff of a hospital.

In the July issue of the *London Lancet*, Dr. Bucknill tells of the motive that led Constance Kent, a young girl of eighteen, to murder her young brother. "The girl's own mother having become partially demented, was left by her husband to live in the seclusion of her own room, while the management of the household was taken over the heads of grown-up daughters, by a high-spirited governess, who, after the decease of the first Mrs. Kent, and a decent interval, became Constance Kent's step-mother. In this position she was unwise enough to make disparaging remarks about her predecessor, little dreaming, poor lady, of the fund of rage and revengeful feeling she was stirring up in the heart of her young step-daughter. To escape from this hated presence, Constance once ran away from home, but was brought back, and after this she only thought of the most efficient manner of wreaking her vengeance. She thought of poisoning her step-mother, but that, on reflection, she felt would be no real punishment, and then it was that she determined to murder the poor lady's boy, her only child." Hatred of her stepmother was the motive for her crime—an awful revelation of the depths of household misery.

" Within a few years an inland and comparatively small city in Michigan has become suddenly famous as a great drug center where many of the most valuable and elegant chemical and pharmacal preparations of the day are manufactured."—Dr. Wm. A. Green, of Macon, Georgia, in *Philadelphia Druggist and Chemist.*

The New York Aquarium has a remarkable living monstrosity known as the St. Benoit twins. They are now about eight months old, have two perfectly formed heads, and two bodies as far as the last rib, but below that are both fused into one. They have four arms, only two legs, and each child has the control of but one of them. One may be sleeping while the other is laughing; one crying while the other is nursing. They are of the female sex, have but one umbilicus, one abdomen, one vagina and one rectum. The parents are about twenty-six years old, and have one other child, a girl two years old, normal in every respect. They are really fine-looking children, and apparently perfectly healthy.

Dr. Sanger, of Bangor, Maine, presented certain facts respecting malpractice suits in Maine to the recent meeting of the Maine Medical Association. By correspondence with other physicians he has collected seventy cases of malpractice suits and fifty-five threats. Of the seventy who were sued for damages of from $1,000 to $25,000, six paid from $100 to $350 rather than stand trial, and nine were cast in damages for malpractice of from $103 to $2,000. The nine plaintiffs who compounded were not worth anything. Eight of the nine who got damages were not worth a dime, and all but six of those who failed to sustain their suits were worthless. Out of seventy prosecutions only seven were able to pay taxable costs, and very many of them were drunken and shiftless persons. One in eight got a verdict for damages. The total paid on the verdicts for damages was about $6,500, and as many of the suits were long and expensive, it is probable that more than one-half of the sum was devoted to expenses, leaving about $3,000 to be distributed.

Professor Virchow has abandoned active political life for an undivided service of science. Addressing his late constituents, he says: "Perhaps you may think me a good enoug politician, but for myself I think I am a better savant. I a convinced that in this my real province I can be more usef than in the Reichstag."

At the last meeting of the Ohio State Medical Society committee was appointed on the "consolidation of medical colleges." The idea was that too many colleges existed in Ohio, and that the profession would be benefited by concentrating the present teaching material into a smaller compass. The committee consists of one member from each of the seven faculties of the seven regular medical colleges of the State. The idea is a capital one, if well developed.

The *British Medical Journal*, July 20, 1878, reports the case of a somnambulist who killed his own child. The jury acquitted the man on the ground that being unconscious he was not responsible for his action. Thus, though unconscious, a person may act elaborately, although such cases are rare. Casper relates several. The famous case of Bernard Schidmaidzig, who saw in a dream a fearful-looking white specter coming towards him, struck at it while half awake and killed his wife; that of the young man who suffered from horrible dreams, particularly on bright moonlight nights, and who during one of these, when his father got up by night, and he heard the door jar, sprang up, seized his double-barreled gun, and shot his father through the heart; a precisely similar case of a young man of property; that of the man who, oppressed by a dream, in which he seemed to be struggling with a wolf, killed his friend sleeping beside him, by stabbing him with a knife. There is abundant proof that most horrible deeds may be perpetrated in the dreamy state of somnolence.

By order of the faculty, Prof. A. B. Palmer has sent to us, in common with other journalists and physicians, the following:

"At a meeting of the Board of Regents held June 25, 1878, a recommendation made by the 'Committee on the Medical Department' was adopted. Said recommendation provides for the appointment annually, by the Board, of two homeopathic physicians of the State, who jointly with the Faculty of the *Homeopathic College* shall 'have SOLE CHARGE of all examinations in said Homeopathic College.'

"From this it will be seen that none of the professors of the faculty of the Department of Medicine and Surgery are any longer required to examine any student of the Homeopathic College, or to make any statement, or to afford any evidence of any kind to be used toward their graduation in homeopathy, or for any other purpose, or to take cognizance in any way of students in exclusive or sectarian medicine."

It might have increased the influence of the above had the faculty informed us what professors taught the students of the Homeopathic College.

The Medical Society of the county of New York, at its May meeting, had placed before it by its Committee on Ethics the following:

"*Resolved*, That strict adherence to the proposition '*similia similibus curantur*' in the selection of medicine, and the rejection of the aids furnished by anatomy, physiology, pathology and organic chemistry, constitutes exclusiveness. Those who do not reject the aids referred to, and who do not prescribe homeopathically when better ways are known to them are not exclusives. The only exclusives in this county known to this committee are a minority of the Homeopathic Medical Society of the county and the members of the Eclectic Medical Society, the constitution of whose State organization excludes the employment of antimonials, mercurials and venesection." The object was to permit consultation with the so-called liberal homeopaths. An animated discussion followed, during which Dr. Sayre suggested that if the homeopaths wished to be recognized by us, let them follow the good example set them by the worthy president of the society (Dr. John C. Peters), who had adjured their false gods and come over into the ranks of the regular profession. The resolution was voted down by a considerable majority of those present, and the announcement greeted with applause.. The *Medical Record* thinks that the legal courts of New York would reverse the decision if the matter came to a test.

The alienists and neurologists are considerably exercised over a passage of arms between Dr. E. C. Spitzka and Dr. Eugene Grissom. The former in, to say the least, a very vigous article, criticised the action of the superintendents of the insane asylums, using the terms "ignorance, charlatanism, insincerity and neglect, flagrant and obvious short-comings." Writing from New York, he could scarcely fail of strongly hinting at the management of the State asylum at Utica. Dr. Grissom, in a paper read before the association of these asylum superintendents, endeavors to give his idea of Dr. Hammond's character, "as lost to conscience and honor," as a "Bombastes Furioso of false experts," a "Titus Oates," as the "Cagliostro of to-day," "a moral monster, whose baleful eyes glare with delusive light, whose bowels are but bags of gold, to feed which, spider-like, he casts his loathsome arms about a helpless prey." As to the merits of the case, we cannot bring ourselves to think that in either case such language was required to express the truth. We have yet to see any good end gained by bitter personalities that could not have been better reached by courteous language. It is natural, doubtless, that the present managers desire to retain their position and powers, and as natural that others should desire to secure such rotation in office as might result in their being landed in said positions. But in the strife for preference, we trust that it may not be forgotten that members of the medical profession should exhibit at least the garb of gentlemen.

It may be, however, that over-much cerebral study has produced such a cerebral irritability as to remove largely the power of normal inhibition. As an appropriate remedy for this disorder we suggest *rest*, in fishing among the forests for speckled trout, as a better remedy than fishing for the position of manager of an insane asylum.

The autopsy of the late Dr. J. C. Ayer revealed the brain hardened, the convolutions shrunken and yellow. The membranes were thick and clouded. The bones of the skull were thinned on the sides, the arteries in many places were atheromatous, obstructing the cerebral circulation. The heart and liver were fatty. The brain weighed fifty-three ounces, the proportion of the cerebrum to the cerebellum being as seven and one-sixth to one. It is said that he exhibited evidences of mental derangement for several years before he was confined in the asylum.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. 1878. Paper; pages 529.

Few books come to our notice during the year that we welcome more cordially than this annual report. The one before us opens with the general report of the Board, its expenses, etc. Then we have an elaborate report on the "Pollution of Streams," especially the basins of the Hoosac and Housatonic Rivers. These rivers have been surveyed, the various localities visited and studied, and chemical examinations made of the water. Thus concludes a work which the Board began in 1875. From the facts thus gathered, the Board present the draft of a bill to prevent the pollution of streams. This bill provides that no solid refuse be cast into ponds or streams so as to interfere with their flow or pollute their waters, except for the sake of wholly or partly filling them for proper purposes; that water supplies shall not be further contaminated; that the local boards of health, with the approval of a properly constituted board, have the power to regulate the pollution of streams not used as water supplies. It regulates the discharge of various substances into sewers; requires the approval of the board above referred to before water supplies or sewers can be introduced; prohibits the building or raising of dams without the permission of the same board, and abolishes privies and cess-pools within proper limits. It prohibits the direct discharge from privies of human excrement into streams. It gives the board mentioned power to abate any existing evils in the matter of pollution of streams when in their judgment the public health or the public comfort and convenience shall require, either by an order to "cease and desist," or by requirement that the noxious matter be purified or sufficiently cleansed: *provided*, that on any application to the board to exercise the powers conferred upon it, a time and place for hearing the parties shall be assigned, and due notice thereof given to the party against whom the application is made. In all such cases the board are to consider the reasonable practicability of a remedy as an important element in rendering their judgment. Supervision and partial control by the State Board of Health of the drainage, sewerage and disposal of sewerage by State institutions.

Many interesting points respecting water supply, drainage of houses and sewerage are suggested by these examinations of the Board. We cannot forbear quoting a few of these: The privy system by which filth is stored up to pollute the air, soil and water near dwellings, should in all cases be abolished; cess-pools are little better, and should be given up for something less objectionable as soon as possible. Wells can not be depended upon for supplies of wholesome water, unless they are thoroughly guarded from sources of surface and subsoil pollution. Some of the foulest well water examined by the Board, has been clear, sparkling, and of not unpleasant taste.

Where wells have already become polluted, and it is not practicable to dig new deep wells, remote from sources of contamination, or to introduce pure public water supplies, the storage of rain water, properly filtered, is a satisfactory method of procedure.

Dr. Adams gives an account of the Cottage Hospital at Pittsfield, Mass. This is patterned after the English Cottage

Hospitals, and according to the doctor's account, practically gives the best of satisfaction. In towns of ten thousand and upwards, similar hospitals would do excellent service.

Dr. B. Joy Jeffries' paper on "Dangers from Color Blindness," is very suggestive, and elsewhere we have given a full account of its teachings. W. R. Nichol's paper on "The Filtration of Potable Water" is very exhaustive, and teems with suggestions. D. F. Lincoln, M. D., treats of schools, their site, construction, sewerage, drainage, ventilation and as a means of transmitting contagious diseases. Surely he who reads this paper must be convinced that there are serious defects in the means by which the brains of the young are being developed. One is almost tempted to exclaim, "Do not these, in giving mint, anise and cummin, omit the weightier matters of the law?"

Dr. A. H. Johnson presents an extended study of scarlatina, its nature, duration of the infective period, its prevention, etc. Another long paper, on the sanitary condition of Cambridge, and the annual report from the several towns, closes the volume. In no other way does the State of Massachusetts so wisely spend $5,000, as in the support of this board. Its prosperity has been, is, and will be vastly increased by these labors. L. C.

SECOND ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF WISCONSIN, FOR THE YEAR ENDING DECEMBER, 1877. Paper; pages 155.

Besides the general report showing the operations of the Board in a practical way, the abuses it has unearthed and removed, the sanitary knowledge it has scattered abroad among the people and the profession, we have ten separate papers. Dr. Griffin's discussion of scarlet fever, small pox and disinfectants, is timely for that State, and worthy of careful consideration anywhere. Dr. Marks presents the scientific facts respecting hydrophobia. General Bintliff presents the essential features needful to be observed in the ventilation of public buildings; also a report on the ventilation of various public buildings in that State.

Dr. Winter carefully gives the facts obtained from an examination of the water supply of Wisconsin. Sanitary village work is well set forth by Dr. Strong. Dr. Davies attempts to show the value of vital statistics. The Secretary gives an abstract of the proceedings of his visit to the American Public Health Association. Although one of the youngest State health boards, this report gives evidence of capital work, and promise of better each year.

ON THE THERAPEUTIC FORCES—AN EFFORT TO CONSIDER THE ACTION OF MECICINES IN THE LIGHT OF THE MODERN DOCTRINE OF THE CONSERVATION OF FORCE. By Thomas J. Mays, M. D. Cloth; pages 130. 1878. Philadelphia: Lindsay & Blakiston.

On his title page the author has placed the following quotation from Dr. Bence Jones's Pathology and Therapeutics: "Perfect knowledge of the action of medicines can only be obtained when the action of each force in each medicine upon each force in each texture of the body can be estimated." This book is an effort of the author to trace the action of the force of some medicines upon the forces of certain tissues. He has no new experiments or facts to offer, and only pretends to somewhat re-arrange old facts and views.

His opening chapter attempts the demonstration of a complete and distinct difference between those substances which supply working force to the body and those which supply material to renew its structures; that one cannot permanently supplant the place and functions of the other, and that substances which confer force on the body in this manner do so by increasing the tension or motion of the bodily molecules. With his view of the nitrogenous and certain organic foods, viz., that they do not tend to modify molecular activity in the body, these are left out of consideration. Of the force producing foods he ranks highest cod liver oil, lean beef being six times less. It will be seen that he rejects the views of Flint and adopts those of Barry respecting the source of animal heat and power. We have not space to follow his argument through his discussion of particular remedies. Whether his theories are accepted or rejected, the thought is vigorous and suggestive, and we hail it as one of the evidences that we are progressing, even though it be slowly, in a way better than the one our fathers trod.

PHYSICS OF THE INFECTIOUS DISEASES. By Dr. C. A Logan. Cloth; pages 212. Chicago: Jansen, McClurg & Co. 1878.

The author tells us that this book is the outcome of a four years' consulate at the republic of Chili, South America. Observing there only an infrequent occurrence of the so-called infectious diseases, he was led to seek the reason for such an infrequency. Briefly stated, he found these reasons to arise from the physical configuration of the country. It will be remembered that Chili is a land of earthquakes. The author claims a direct connection between these and the non-prevalence of infectious diseases. The earthquake itself, he concludes, is caused by the actual transmission of a certain form of energy from point to point, causing the manifestation of the attendant phenomena. He brings forth many observations with which to establish his proposition, and further asserts that were the Andes leveled so that there would be no altitude above or near the snow line, earthquakes would be prevented. The author's facts and arguments lead him to believe as to infectious diseases: (1) Each one of the class possesses an original habitat or indigenous locality. (2) When one of the type is developed in a locality foreign to the disease it occurs from a transportation not of the original cause, but of the representative results of the disease. (3) The original producing agent may be of animal or vegetable character, coming immediately from animalcular or microphytic forms, or directly or indirectly from the lower animal creation; and it would appear not impossible that a contagium of specific character might be wholly inorganic in constitution. (4) The contagium of a type disease in man does not consist of vegetable germs, but is a product of a preceding type action, and is representative of that action in its atomic construction; and possesses the property under vital and physical laws of inducing the typical action in a healthy system. (5) Atmospheric aridity to the extent existing upon the South Pacific coast does not destroy phyto-germ life, and hence cannot be the cause of the exemption of that coast from the acute infectious diseases; nor can it be said to decompose either animal or vegetable germs, but on the contrary is rather preservative of them. (6) Violent electric energy as an agent powerfully operative in inducing energic transmutation directly decomposes the infectious molecule by chemical re-arrangement, or breaking up of its atoms. In spite of a fanciful style the book has considerable real merit, and will repay a careful perusal, more, perhaps, because of its suggestiveness than of its positive demonstration.

THE LAWS OF POPULATION; ITS CONSEQUENCES AND ITS BEARING UPON HUMAN CONDUCT AND MORALS. By Annie Besant. Authorized American, from the English edition. Paper; pages 48. New York: Asa K. Butts. 1878.

The English edition of this work has subjected its author to persecution, but in spite of it at least twenty-five thousand copies have been sold. In fact, no better method could have been taken to advertise the work and insure its sale. Now, as ever, persecution insures the rapid extension of the doctrines of the persecuted. The essential features of the work may be briefly stated. Unchecked, all animals reproduce their kind too rapidly for the good of the whole. Man, as an animal, does this, and hence entails infinite misery, crime and suffering upon his progeny. Disease, war and starvation ultimately carry off the surplus. The author suggests that by intelligent regulation of the number born into the world all these manifest evils of overcrowding could be avoided. Celibacy she deems suicidal. But she advocates early marriages and the intelligent regulation of impregnation by the use of one of the means for indulging in sexual intercourse and yet preventing the contact of the spermatozoa with the ova. In principle these teachings are similar to those of Malthus, formerly known only to the few. The present effort is not so much to advocate any new doctrine, but to popularize and make effective among the masses old doctrines. Questions of vast moment are here opened up, and matters heretofore confined to a few thinkers and scientific students are scattered among the masses. Will the results be good?

(1) VASCULAR TUMORS OF THE FEMALE URETHRA, with the Description of a Speculum devised to Facilitate their Removal. By Dr. A. Reeves Jackson. Reprint from "Gynecological Transactions."

(2) AMPUTATION AND EXCISION OF THE CERVIX UTERI; their Indications and Methods. By Dr. J. Byrne. Reprint from "Gynecological Transactions."

(3) FUNCTIONS OF THE ANAL SPHINCTERS. By Dr. James R. Chadwick. Reprint from "Gynecological Transactions."

(4) A HYSTERO-PSYCHOSIS; Epilepsy dependent upon Erosions of the Cervix Uteri. By Dr. Geo. J. Englemann. Reprint from *St. Louis Clinical Record.*

(5) HYSTERO-NEUROSES, with Special Reference to the Menstrual Hystero-Neurosis of the Stomach. By Dr. George Englemann. Reprint from "Gynecological Transactions."

(6) THE OBSTETRIC FORCEPS; When and How to Use it. By Dr. Geo. J. Englemann. Paper; pages 6.

(7) ON THE POSTURAL TREATMENT OF TYMPANITIS INTESTINALIS FOLLOWING OVARIOTOMY. By Dr. E. W. Jenks. Reprint from *American Journal of Obstetrics.*

(8) CASES OF DOUBLE UTERUS AND VAGINA. By Dr. Jas. R. Chadwick. Reprint from *Boston Medical Journal.*

(9) REMARKS ON OVARIOTOMY, with an Appendix, giving the History of Several Typical Cases. By Dr. J. W. Roseburgh. Reprint from the *Canada Lancet.*

(10) THE PITH OF THE DRIED CORN STALK AS A UTERINE TENT. By Dr. W. T. Goldsmith. Reprint from "Transactions of Georgia Medical Association."

(11) OBSERVATIONS IN PRACTICE; SURGERY, GYNECOLOGY, AND ESPECIALLY OBSTETRICS. By Dr. George B. Walker. Reprint from *Chicago Medical Journal.*

These eleven papers in general may be classed under one heading, the diseases of women. The next noticeable feature is that all are reprints from some volume of transactions or medical journal, a practice coming more and more into vogue.

(1) Dr. Jackson directs attention to vascular tumors of the female urethra. He makes it a rule never to treat a patient more than a few days for frequent and painful micturition unsuccessfully without examining the urethra. He removes the tumors with a scissors and then cauterizes the base. To facilitate the examination and treatment he has devised a speculum, consisting of a tapering glass tube, closed at one end and provided with a flange at the other end, and having a fenestrum on one side. It is made of glass, two and a half inches long, and half an inch in outside diameter.

(2) Dr. Byrne, in an exhaustive and characteristically clear manner, discusses amputation and excision of the cervix uteri. He is an enthusiastic advocate for the use of the galvano-cautery in these operations, believing that in this way most safely and satisfactorily the operation can be performed. His large experience entitles his opinion to careful consideration.

(3) Dr. Chadwick gives a most interesting account of some original researches into the functions of the so-called anal sphincters. He shows that the internal and third sphincters are analogous in their action to the circular fibers of the rectum and large intestines; that, like these fibers, they dilate before a fecal mass and contract as it passes, so as to force it toward the external and true sphincter ani. He suggests that the first two be called superior and inferior detrusor fecium.

He further directs attention to the depression of the perineum by the contraction of the abdominal muscles, and its subsequent elevation to the normal plane by the activity of its own muscles. Thus he is able to show that defecation consists of three separate successive acts: peristalsis, abdominal contraction and perineal contraction.

(4) and (5) Dr. Englemann contributes a case of epilepsy cured by the application of nitric acid to an eroded os uteri; also many cases of hystero-neuroses of the stomach, due to uterine disorders. Evidence is presented showing the relative frequency in women of neuroses of other organs; as, the eye, the throat, the bronchi, the breasts, the intestines, the joints, etc. In all of these cases the origin of the neuroses was traced to some derangement of the genital organs.

(6) The same author gives some excellent directions as to the time and method of using the obstetrical forceps.

(7) Dr. Jenks tells us how, in certain contingencies following ovariotomy, the postural treatment may enable us to relieve the patient of a dangerous tympanites.

(8) Dr. Chadwick reports five cases of double uterus and vagina.

(9) Dr. Rosburgh, after a general account of ovariotomy, reports five cases.

(10) Dr. Goldsmith advocates dried pith of corn stalk as a material for making uterine tents. His experience shows that it makes a cheap and safe substitute for the ordinary materials.

(11) Dr. Walker, in this paper gives us the results of a practice extending over a period of forty-six years.

IS MODERN EDUCATION EXERTING AN EVIL INFLUENCE UPON THE EYESIGHT OF OUR CHILDREN? By Dr. A. W. Calhoun. Reprint from *Atlanta Medical Journal.*

This is a popular address upon the topic, and very correctly sets forth the facts already known. True it is, as has been shown by some forty thousand careful examinations, that the eyes of school children are far more diseased than those who do not go to school; and that the ratio of diseased eyes rapidly increases with the number of years which classes of scholars have spent in the school. Among the influences at work in most school-rooms to impair the eyesight of the scholars, are bad air, bad light, improper desks, and improper hours of study. If followed in its true meaning, education would cause the child to grow better and stronger up through his school life; that by proper regulation of his diet, and management at home, by properly lighted school-rooms, and properly constructed desks, and a better regulation of the hours of study, he should represent a much higher type of life when he has reached the age of twenty-five, than when he has just begun to acquire his book knowledge. The eye certainly should not be damaged in the process of education, and it is pretty evident that any damage thus obtained, is but a measure of that which is done to other organs of the body.

LEGAL RELATIONS OF INSANE PATIENTS. By Foster Pratt, M. D. Reprint from Transactions of Michigan State Medical Society, 1878.

This timely and excellent address has per order of the society received a wide distribution amongst the most intelligent portion of the people of Michigan. Touching as it does vital interests relating to all, it can scarcely fail of great good. The doctor was incited to discuss this topic from his interest in the fate of Dr. Van Dusen, late superintendent of Michigan State Insane Asylum at Kalamazoo. A woman who had been a patient in this asylam, under Dr. Van Dusen's class, brought a suit against him for "false imprisonment and assault and battery." The plaintiff claimed that she was sane, and illegally confined in the asylum, and therefore charged the doctor with conspiracy to confine, and with damages for malpractice and maltreatment by him, or his responsible agents.

The defense denied the sanity of the plaintiff, denied the conspiracy, denied the false imprisonment, and denied the malpractice and the maltreatment. In Dr. Pratt's opinion all these denials were made good by the evidence presented. Yet the jury assessed the plaintiff's damages against Dr. Van Dusen at the sum of $6,000. This is the first instance in which any superintendent of an American Insane Asylum has been found in any degree culpable. The additional aggravation in the case is that the judge refused a new trial.

Such is in brief the test of this address. In it the distinction is very clearly made between restraint as a therapeutical measure, and restraint as a police necessity. Should this be ever remembered, there would be less hue and cry about the confinement of the insane.

DISLOCATION OF THE SHOULDER JOINT, Caused by Muscular Spasm of Six Months' Standing, Successfully Reduced; and Dislocation of the Femur on the Dorsum Ilii in a boy six years of age, reduced by Manipulation. By Dr. A. B. Cook. Paper; pp. 3. Reprint from *Richmond and Louisville Med. Journal.*

CARBOLIC ACID INJECTIONS IN THE TREATMENT OF PILES. By Dr. A. B. Cook. Paper; pp. 8. Reprint from the *American Medical Bi-Weekly.*

OLD AGE: ITS DISEASES AND ITS HYGIENE. By L. P. Yandell, M. D. Reprint from *American Practitioner.*

This was the last paper from the pen of this prolific writer. His elegant diction accurately delineated the characteristics of old age. Very wise are his words of counsel as to its hygiene. Earnestly he warns against a total cessation from work as declining years advance. Activity the brain must have while it lives.

MEMORIAL ADDRESS UPON L. P. YANDELL. By Dr. T. S. Bell. Reprint from *American Practitioner.*

A glowing portrait of one of the marked men of the past generation.

CHOLEOCYSTOTOMY FOR THE REMOVAL OF GALL STONES IN DROPSY OF THE GALL BLADDER. By Dr. J. Marion Sims. Reprint from *British Medical Journal.*

The operation was brilliant and successful, but the patient died the ninth day thereafter. From it the writer deduces the conclusion that "in dropsy of the gall bladder, in hydatid tumors of the liver, and in suspected abscess of the same, and in gall stones, we should make an early exploratory incision, ascertain the true nature of the disease, and then carry out the surgical treatment demanded. With antiseptic precautions, he believes this not only feasible, but perfectly justifiable.

TYPICAL CASE OF ADDISON'S DISEASE, WITH REMARKS. By Dr. George Ross. Reprint from Trans. Canadian Medical Society.

Case is well reported, and remarks judicious.

THIRTY-FIFTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N. Y., for 1877. Paper; pp. 96.

This report exhibits the healthy operation of every portion of the asylum.

MEDICO-LEGAL EVIDENCE RELATING TO THE DETECTION OF HUMAN BLOOD, PRESENTING THE ALTERATIONS CHARACTERISTIC OF MALARIAL FEVER, ON THE CLOTHING OF A MAN ACCUSED OF MURDER. By Dr. Joseph Jones. Reprint from *New Orleans Med. and Surg. Journal.*

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY FOR 1878.

As in our June issue, we gave so full an account of the meeting at which these transactions occurred, it is superfluous to notice the volume here at length. Dr. Ranney deserves credit for the promptness with which he has done his work.

ATLAS OF SKIN DISEASES. By Louis A. Duhring, M. D. J. P. Lippincott & Co.: Philadelphia. Price $2.50.

Part four of this excellent work lies before us. In wise selections of cases and elegant execution, this fully equals the preceding parts: "Vitiligo," "Alopecia Areata," "Tinea Favosa," and "Eczema" (rubrum), are the subjects presented. Tersely, yet clearly, the accompanying letter-press describes the essential features of each illustration. It is a capital clinical lecture, good for a generation at least.

THE DETROIT LANCET.

VOL. I. OCTOBER, 1878. No. 10.

Original Communications.

Death indirectly Caused by Calcareous Degeneration of Arterial Tunics.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE BY J. H. BEECH, M. D., COLDWATER, MICH.

August 3d, 1878.—Mr. J. L., æt. 60 years, a very hard working farmer of good habits, and good constitution, but had suffered an extremely dangerous attack of pneumonia when about 40 years old, and, his wife said, "had coughed and complained a good deal for three or four years," received a wound by the sickle of a "mower," by which all of the posterior four-fifths of his left leg was severed near the ankle joint, the tibia being cut through the cancellated portion. The fibula was also severed at the same level, and the arteries just below the giving off of the maleolar branches.

He immediately put his suspenders around the leg below the knee, and made them *very tight by a well-tied knot;* but the blood did not stop.

Being alone, on a marsh, it was a long time before his halloaing attracted attention, and fully an hour and a half before the first physicians reached him at his house, and a tourniquet was applied, which effectually stopped the bleeding, but caused him such pain at the point of their election—I think the popliteal space—that it had to be removed to the extreme verge of the stump.

Three hours after the accident we found him faint and very feeble. The skin had been cold and his pulse scarcely perceptible when he was brought to his house, but restoratives had been partially successful.

It was decided to administer an anæsthetic, and if the pulse "came up," amputate at once; if not warranted in operating to transfuse from some of the full veins in attendance.

Drs. Warren Byrns, Morey and Sanders, of Bronson, assisting, chloroform was administered, the artery compressed upon the edge of the pubis, the wounded member elevated, and the tourniquet applied at the middle of the thigh.

The pulse and respiration warranting, the amputation was performed by posterior flap operation, with section of bones at junction of middle and lower thirds.

On seeking the arteries, it was found that the catling had slid along the coats of the posterior tibial, and it had not been cut until the final out-cut of the flap, owing to the amount of ossific deposits in its wall. A ligature of good silk, of proper size for the normal artery, was applied, but did not compress the artery enough to look safe. Silk twist, a trifle smaller, was doubled, but broke before the caliber of the vessel had been materially impressed. The artery was then stripped still higher, and the shell of ossific deposits broken down by pinching with the thumb and finger, after which a strong silk ligature was put on with satisfactory result.

The anterior tibial artery required the same treatment of its coats before it could be properly indented.

During the operation the foot of the couch was held high by assistants.

No blood was lost, and the patient "came out" of anæsthesia decidedly improved in appearance, with warmer surface and returning color to such a degree that transfusion did not seem to be required.

Quinine, stimulants and nourishments were administered, and, Dr. Byrns writes me, "seemed to have a somewhat favorable effect for a short time. At the expiration of three hours after the operation the pulse became more feeble. The reaction was never fully established; the skin *never* became warm.

Five hours after the operation vomiting occurred, and was kept up at intervals until nearly 10 o'clock P. M. (about nine hours after the amputation, twelve and a half after receipt of the wound) when he turned his head to the side of the bed to vomit, and in a moment after was dead."

Dr. Sanders informs me that "the ossified condition of the arteries did not extend below the ankle joint."

Criminal Abortion.

READ BEFORE THE CALHOUN COUNTY MEDICAL SOCIETY BY DR. O. S. PHELPS.

Criminal abortion, according to our code of laws, consists in the destruction of the human fetus after quickening, or more definitely, three months after conception. It requires no argument to prove that this law is not based upon recent physiological investigation at least, for Marshall declares in his physiology that the foetal heart beats at the fifth week of gestation, and is, consequently, just as much an independent human organism then as at three months or six. Can we then fix the exact time when it becomes a crime to destroy life *in utero?* A careful investigation of the subject convinces us that we can, and that the time is at conception. We are fully aware that this assertion is in conflict with the teachings of the past, and we are sorry to say with much of the present, for almost every person that applies for aid to the physician to consummate this act, if brought to face the criminal features of the case will at once quote some doctor as authority in assuring us that there is no crime up to the period of three months, and unfortunately it is too often with them three months till it is *nine.* In discussing this question it is our purpose more particularly to consider some of the causes for this shockingly prevalent crime, and also some of the effects, especially those that we as a profession have to deal with. A theologue might begin and perhaps end his list of causes with total depravity or a near approach to it. But many sins have physiological causes, so to speak, and we will begin this list with, first, a lack of development of true maternal instinct; and it is a sad fact that this applies very largely to "the woman of the period." The strongest safeguard of the unborn child being removed, it is easy for this unnatural woman to entertain in her heart any foe to the life of her child: She may be a votary of fashion, and the contents of her womb become to her an incumbrance. Or the horror of the pains of child-bed may easily lead her to seek to avoid them. A thousand excuses are formed in the mind as coolly as the preparations for the next ball. All this can alone become possible in a woman who lacks development of the maternal instinct. Now, it becomes pertinent to ask what are the causes of this lack of development? They can only be hinted at in this paper, for they alone would afford subject matter for a longer paper than this. Heredity—mothers and grandmothers having been victims of uterine disease—precocity in childhood, owing to the nervous temperament transmitted, which paves the way for stimulating the brain unduly in school, improper reading, excited fancy for dress, aping to be a young lady, improper dress, lack of normal exercise, and in fact almost every means to dwarf the muscular development and stimulate the nervous, following which comes a weak development of the generative organs, leading to functional and then organic disease. Indeed the curious anomaly is produced of cause and effect moving in a circle so that the effect may become a cause, to wit: An abortion produces a certain amount of disease of the generative organs, which in turn so affects the moral status through its effects upon the nerve centers that the natural maternal feelings and obligations are blunted and destroyed to such an extent that it becomes easy for the woman not only to entertain the desire to destroy her offspring, but to act upon it. [Case of Mrs. W. in Jackson county.*] We have not the space to enumerate more of the causes. Suffice it to say that when they are all considered, the faults of our social system, unhealthy moral atmosphere, heredity, etc., a lack of development of the maternal instinct (from whatever it may have been produced) must, we think, be considered the foundation—the condition that makes the horrible act on the part of a mother possible.

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*A case of abortion was described showing a mania to get rid of her offspring.

Since speaking of some of the causes of criminal abortion (and right here we would say that there are in our opinion but *very* few of the cases of so-called miscarriage but what rightly come under this head), every experienced physician well knows how little dependence can be placed upon the statements of the patients, that no means have been used to produce the miscarriage. He well knows that the hackneyed excuses, to wit: lifting something too heavy, falling down the back steps, riding to town in a lumber wagon, reaching up in hanging out a washing, are utterly insufficient to produce the result. [Bean poultice over the bowels.*] We will now turn to some of the effects. First upon the State, beginning with the family—for the family makes the State. It is well known and often remarked that the size of families is gradually growing less; instead of an average of five to eight, it is one or two. The majority of women of the present generation are either incapable of becoming mothers at all, or become so after bearing one or two, or make themselves so by repeated abortions. It fosters profligacy in following worse than needless fashions in dress and manner of living. It blunts the moral senses and leads to vices, notable among which is intemperance (it is an acknowledged fact by those who have investigated the causes of intemperance, that it depends more upon weak, and therefore excitable, nervous systems, brains that are too active for the bodies supporting them; so that fatigue follows too soon upon the exertions consequent upon active employment, and a nerve stimulant is called for), adultery, prostitution, infanticide, murder. The effect upon the family is then hereditary and present, for complicity of husband and wife in an abortion causes them to have a less regard for life and thus much unfits them as members of society and the State. Second, upon the mother; she endangers her own life, often paying the penalty of her unnatural crime with her own life then and there. She destroys her health, and, though she may keep an outward appearance of vigor for a time, she sooner or later comes upon the hands of the physician suffering with uterine disease, subinvolution, corporeal hyperplasia, cervicitis, dislocation or cancer. A peculiar irritation of the generative organs is produced, causing a species of nymphomania, and results in prostituting both herself and husband. The countenances of such couples are only too familiar to the observing physician, and not at all uncommon, being met with as patients and having many symptoms in common, such as weak back, nervousness, etc. Insanity; extensive examinations into the cause of insanity in women by Sir James Y. Simpson and H. A. Storer revealed the fact that a large number of female patients in hospitals and retreats for the insane have become so from uterine diseases, many of which are the direct results of criminal abortion (see "Insanity in Women," by H. A. Storer); and finally it unfits her for becoming a mother, the unfortunate offspring having transmitted to them a weak, irritable, nervous system, predisposing them to insanity, intemperance, and diseases of the generative organs. She is unfitted to give them a mother's care; being weak and irritable and often reckless herself, she cannot endure the care and trouble her little ones give her, and she sadly neglects from sheer inability to do more for them, and often abuses them. Third, upon offspring. As we have said, abortions often have the effect upon the woman of producing sterility, but not always, and it is sometimes hard to say which suffers most from the crime, the child that has been born after abortions have been produced upon the mother, or the mother. Such an one is, alas, a child of sorrow, pale, puny, delicate little frailties, the poor little bodies full of aches, too weak to bear a tithe of the exertions that their abnormally precocious brains and nervous systems are continually goading them to, they make up a large share of the class that are often called "not worth raising." Those of them that reach years of maturity are often a curse to themselves and everybody else. They are predisposed to disease both of mind and body, and as must naturally follow, to vice and crime. How often does the physician have such upon his hands; they are practically incurable, because there is no foundation to build upon; he cannot remove causes, for that would take him back further than the body with which he is dealing. We need only to mention a few of the diseases most frequently seen in this class of children: Chorea, epilepsy, general debility (a condition), Onanism (a vice as well as a disease), to say nothing of that debility affecting all the tissues, that in a general way is called scrofula; orthopedic surgery draws largely from this class. Last, upon the physician. It is with shame and regret that we are obliged to acknowledge that there are those of our profession, who are guilty of staining their hands with infant blood. It is a shameful, cowardly crime to slay an unborn child, for which we can find no words to express our reprobation, horror and disgust. We can have some charity for the woman who has been taught to believe that it is no crime to destroy a three months' foetus, and who for lack of maternal instinct has more easily forced upon her the various temptations to get rid of her fancied incumbrance. But what shall we say of the physician whose cupidity or total depravity has induced him, instead of telling the truth, to mislead those who have sought his advice, lulling the last lingering ray of conscience by the *murderous lie*, that there is no harm up to the period of three months, and clinching his theory by rupturing the membranes and sending one and often two human beings into eternity. Gentlemen this is no fancy picture, and if we have one professional duty that is above any other to perform, it is to denounce most emphatically those who are guilty, and to instruct the people by telling them of the crime and its consequences. The demoralizing effect of this horrible business is to greatly lessen his regard for adult life, hence the responsibility for the lives of his patients rests lightly upon him, and if they *die* through his carelessness or neglect, it matters little to him, if he escapes the law and the loss of prestige.

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*The above was the means alleged in a certain case of abortion that came to the notice of the writer.

In this brief manner we have gone over some of the ground relating to one of the greatest evils of the age, than which, there is perhaps, no other more far-reaching in its sequences. And the practical question suggested is, can anything be done to stem the tide? We believe, gentlemen of the medical profession, that it is in our hands to do more than all the law making powers or ecclesiastical bodies in the world. It can be done without pomp or show. With our position as in the possession of knowledge relating to their physical conditions, we are so placed that word is accepted by the people in these matters with almost religious faith. We can not only denounce it as a crime, but give them physiological facts to prove our statements. We can show them the physical consequences so emphatically that they will shudder at the thought. We must set our faces firmly against any and all attempts to shun the consequences of the conjugal relation. For, from the moment the thought of preventing or avoiding conception is entertained there is no place to stop, no middle ground, it is the first step to *criminal abortion*.

The Duality of Croup and Diphtheria.

READ BEFORE THE DETROIT ACADEMY OF MEDICINE,

BY DR. PETER STEWART.

The duality of croup and diphtheria is a subject which has been for some time engaging the attention of the profession all over the world. As there are two parties equally able and observant, it naturally follows that we have plausible theories and arguments on both sides of the question. So far as I have read, those who maintain the identity of the two diseases have not, in my estimation, made out a case; and so ably have they been met by their opponents, that in the present state of our knowledge I feel no hesitation in joining with the latter, more particularly as it is of great practical importance to make a distinction as regards treatment in the two diseases — the one requiring antiphlogistic, and the other stimulating remedies. But when we see that such able pathologists and diagnosticians are engaged, it looks rather presumptuous for pigmies to enter into the battle of giants. True, the present aspect of the case is calculated to do a great deal of harm in unsettling the minds of many, particularly new beginners and those who have had no experience, which may lead them into error in the most important point, namely, therapeutics. In the chaotic state of the etiology of the two diseases, it is far safer to cling to the old ship until the shore is reached. The present controversy owes its origin to the divided opinions existing among the profession, who may be compared to the inflation and hard money parties; the one having a tendency to increase, the other to curtail or decrease. The latter, I admit, is very desirable; but in our anxiety to accomplish this end, we should be careful not to go too far, always bearing in mind that the truth is apt to lie between extremes. At the same time the tendency to investigate and ascertain the cause of disease is highly commendable, and everything calculated to throw light on so worthy an object, should be encouraged. Leaving the question of pathology and etiology in the hands of those who possess greater facilities for investigation, satisfied that truth will triumph, I will, in the following notes, confine myself to the impressions left on my own mind, and conclusions arrived at after considerable experience, and reading arguments and theories advanced by others. It has been my lot to treat both diseases in their most violent form, and anxiety for the patient's welfare, as well as my own reputation, led me to consult all authorities which came within my reach, and so far I have not met with any theory, tested by experience at the bedside, that would lead me to change my opinion in regard to duality, any more than in scarlatina and measles. In order, then, to have the matter clear before us, let us adopt the old-fashioned way of describing the most prominent symptoms of each, and, having compared them, show their dissimilarity.

CROUP.—This term, which means spasm, choking, suffocating or strangling, has been for some time accepted as the name of a disease peculiar to children—a local inflammation of the larynx and trachea, accompanied with spasm and pseudo-membranous exudation, and sometimes spreading to the glottis and bronchi. It has been described by different authors, from Hippocrates downward, under various names, such as cynanche, children's asthma, etc., so that it is at least as old as the history of medicine. The variety of names which it has received is owing to one particular symptom having impressed the observer above others, but in all its spasmodic character is always recognized. Dr. Blair, in Scotland, 1718, Holmes, 1746, and Rush, of America, 1770, were the first to point out its inflammatory nature. When Napoleon offered a prize for the best essay, after numerous papers, a warm discussion took place as to the nature of true croup, which has not yet been settled; some dividing it into three forms, spasmodic or nervous, catarrhal, inflammatory or pseudo-membranous. This last is claimed by some to be the only true croup, the others being classed under the head of false or spasmodic, and this also is the one which the unity theorists maintain to be identical with diphtheria; while others assert that all forms are the same in kind, and differ only in degree, and are essentially imflammatory, caused by irritation of the larynx and trachea, and that the above varieties are merely modifications or stages of one and the same disease, differing only in intensity, owing to temperament, habit of body, severity of the exciting cause and promptness in treatment—thus, in the nervous, producing spasmodic; in the robust and those susceptible to inflammations, the pseudo-membranous, in proportion as the exciting cause is severe, or when the inflammation is not promptly arrested. All parties agree that there is more or less spasmodic action present in every case, which is easily explained on the theory of reflex action; experiments have also proved that, not only will artificial irritation of the mucous membrane of the larynx and trachea produce spasm and inflammation, but if sufficiently severe, a membranous exudation in young animals. I have myself seen this in a child who died from inhaling hot steam from a kettle. Now, if we consider all forms as an inflammation differing only in severity according to circumstances, which we have no reason to disbelieve until we have ascertained the smallest amount of irritation which may in certain constitutions produce alarming symptoms, it will be evident that croup and diphtheria are distinct diseases; but granting that there is a purely nervous form, yet all nosologists concede that there is an inflammatory class which is claimed to be identical with diphtheria. The first symptoms are usually those of catarrh—if old enough, the child complains of chills—running at the nose, hoarseness, and a slight cough, which in a short time assumes the characteristic sound which is described as barking, crowing or stridulent, and when once heard is seldom forgotten; there is fever, frequent and hard pulse, tongue white and the child complains of pain in throat, with occasional fits of coughing and dyspnœa; towards night these are all aggravated and the patient frequently awakes in the most dreadful distress, and continues in this condition till day-light, when he will fall into a sleep, and through the day is running around; but if the attack be not cut short he is still worse on the following night, and so on, until two or three nights will terminate his suffering; and I know of nothing more trying than to witness the distress of a child in these paroxysms. In other cases it is ushered in by a severe chill, generally towards evening or at night, and all the severer symptoms are rapidly developed; and, if relief is not soon obtained, it may prove fatal in from 24 to 60 hours. This form is owing to the peculiar susceptibility of the child, the severity of the exciting cause, or both combined. The different stages are so well laid down by authors, that it is not necessary here to refer to them; suffice it to say, that, if the inflammation is not controlled early, it will speedily prove fatal. I have never known a case of recovery after the membrane has been fully formed, although there are such on record; especially after tracheotomy, or when the membrane has been coughed up, which sometimes happens; there is always more or less fever present, with hot skin and a hard frequent pulse as we have in other inflammations. On looking into the throat, in the early stage, nothing more is seen than in simple catarrh, and we must be guided by the condition of the pulse—pain in the throat, the peculiar cough and the paroxysmal difficulty in breathing. In the later stages the pharynx and tonsils are swollen and red, and when the pseudo-membrane is fully formed, it may be seen around the rima glottidis. I have never known it to appear on the pharynx and tonsils. Death may be caused by strangulation, asphyxia or by the formation of clots in the heart, owing to the fibrinous condition of the blood. When the deposits extend far into the bronchi, want of aeration of the blood assumes an important part, and the system becomes charged with carbonic acid, which poisons the nerve centers, and convulsions frequently close the scene.

Pathology—When death occurs early the lining of the larynx and trachea will be found covered over with a thin layer of soft friable substance intermediate between albumen and fibrine, and easily wiped off, which later becomes of such a consistence that the whole can be removed like the cast of a tube. In every instance it does not seem to be firmly adherent to the mucous membrane, but is detached from it by a thin layer of thick mucus or perhaps unorganized albumen or pus. Another point of importance to be noticed is that the exudation does not take place in spots, but is spread all over.

Cause—As before remarked, experiments have shown that irritants applied to the mucous membrane of larynx and trachea to the extent of exciting inflammation, produces croupous symptoms, including spasms and pseudo-membranous exudation. This affection being peculiar to children, there is reason to believe that any irritation of sufficient power to excite inflammation would become a cause; but, as that part of the body is seldom exposed to any outside deleterious influence save the air it breathes, it follows that the temperature of the atmosphere must be the main excitant; cold being the most common, we need not be surprised to find the large majority of cases are attributed to its effects, assisted, no doubt, many times, by irritating gases and moisture.

The principal predisposing cause is what might be called the inflammatory diathesis; it generally attacks the healthy and robust, and I have observed that children of families who are liable to inflammatory diseases in other parts of the body were most frequently its victims. When it appears in the anæmic and nervous it partakes more of the spasmodic nature, and is more rarely fatal.

Age exerts a marked influence, as it seldom appears in subjects under one year or over nine; the youngest I have ever attended was ten months, and the oldest twelve years, and only one at the first age, and two at the latter; with one of these the membrane was coughed up. This characteristic goes far to prove its non-identity with any other disease.

The mortality in croup has always been very great; in Europe it is allowed to be one-half, but in this country one in three or two in five is claimed as the average. One author sets it down as a rule that in every ten deaths of children from all other diseases, one dies of croup; but should we confine it to those cases only, as some do, in which there is a membranous exudation, I think the mortality would reach nine out of every ten.

The treatment which has been found most efficacious, and the one recommended by the highest authorities, even while holding opposite theories, is the antiphlogistic, or such as has been, and is still used in inflammations, viz.: emetics, cathartics, alteratives, blood-letting, hot and cold baths and fomentations. There is not a disease in the whole catalogue where suitable therapeutic agents when applied early appear so triumphant as in this; nor so powerless when too late; and were all cases seen early and properly treated the mortality would not exceed that of any other. So universally has this fact been recognized by all writers that they, with unusual earnestness, endeavor to impress upon their readers the necessity of immediate, prompt and active measures. I have known old and experienced men of large practice who would refuse to attend all other cases than croup at unseasonable hours.

DIPHTHERIA, or skin membrane, is the name given to a constitutional contagious disease characterized by a membranous exudation on the tonsils and fauces, and may affect all mucous membranes, or any abraded portion of the skin; accompanied with fever of a low type and great prostration of the vital powers, followed by lesions more or less severe of the glandular and nervous systems. It generally appears epidemically, and is produced by some specific poison at present unknown, invading whole families and communities without regard to age or sex. We have reason to believe that it has existed from time immemorial, occasionally appearing, like cholera. About the middle of the sixteenth century we have the first account of its ravages in Spain, when it spread to Italy, France and America, again appearing in the same countries about the middle of the seventeenth century, when some cases were noticed in England and Scotland. In the beginning of the eighteenth century there is an account of it in some parts of France, Italy and America, its most noted victims being the Empress Josephine and Washington. But this epidemic does not seem to have been very prominent, and disappeared altogether, not having been mentioned by writers since 1825, and never heard of by students educated so late as 1855. In the fall of 1855 it appeared in France, and soon spread into Germany and Italy, and in the latter part of 1856 appeared in England. Its first appearance on this continent was in 1858, in Maine, soon spreading westward, and appearing in all its violence in Canada and other parts in 1860 and 1861, and has continued sporadically and endemically until the present time. Since 1863 it has lost much of its terror, and has grown milder and much more amenable to treatment. Judging by its former history I think we have good grounds to suppose that it will eventually die out altogether, for a time at least. This last epidemic was unusually severe, and spread over a larger portion of the world than any on record. One striking feature has been noted, that, before an invasion, sore throats are uncommonly prevalent.

The onset of an attack is gradual; for a few days there is languor and lassitude, with chilliness, or, rather, a succession of slight chills, in some severe cases amounting to rigor, followed by fever of a low type, with headache, quick pulse, and drowsiness, with pain and stiffness about the joints and throat. On examination the tonsils will be found swollen, with here and there a spot or vesicle, first containing a clear, gelatinous fluid, which soon turns a grayish white, very much like that of chicken-pox; these points or vesicles rapidly increase and approach one another; in a few hours a firm, tenacious membrane is formed, with well-defined margins, and fitting into the surrounding like a watch glass, and firmly adherent. This process goes on as the disease advances, until the whole pharynx is covered, sometimes extending to the nose, œsophagus, larynx, and all the mucous surfaces of the body. In my own experience it more often extends towards the stomach than the lungs. In a day or two the first patches begin to slough off, at first around the edge, and can be removed with forceps, but in the process it tears away as if firmly attached, leaving a raw, bleeding surface, which is soon covered by a new membrane, showing that the mucous membrane is wholly destroyed; thus, removal is more easily effected where resolution has taken place; but it usually sloughs away, especially in bad cases, so that it can be removed in shreds, like an old wet rag. During this stage a fetid, acid, sanious fluid is poured out, which dissolves the membrane, and the foul smell from the part is almost unbearable. The urine is albuminous throughout; the pain in the throat is seldom very severe, but there is difficulty in swallowing. When dyspnœa was present I found it caused by swelling of the glottidis and rima glottidis, particularly when covered by the lymph exudations. In bad cases fainting is common, owing, I think, to clots in the heart or arteries. The bowels are as a rule loose; urine scanty and albuminous. In strumous patients the glands are enlarged, and sometimes suppurate. Often there is delirium, followed by stupor and death. This disorder runs a rapid course, generally proving fatal within two weeks, though recovery may take place at any stage, but these signs usually appear early. Convalescence is long, with more or less lesions of the glands, and always with enlargement of the lymphatics, general or local paralysis.

Pathology—Blood poison, affecting all the secretions, glands and nerves. Scarlet fever is sometimes prevalent at the same time, and frequently attacks the same patient on the decline of the first. So commonly does this occur that many have regarded the two as identical, presuming that the rash was compensated by the abundant deposit of membrane in the mucous tissue, which took the place of the eruption on the skin; and knowing, as we do, the sympathy existing between the skin and mucous membrane, they had a more plausible theory than have those who advocate the unity of croup and diphtheria; but advocates of the former doctrine could hardly be found at the present day.

The mortality during an epidemic is very great, sometimes reaching one in three, but on its decline, and as it appears sporadically it is not higher than ten to fifteen per cent.

The treatment must be tonic, stimulant and alterative throughout. The remedies found most efficacious have been iron, quinine, ammo. chlor. of potash, and small doses of hydrarg., with gargles of tr. ferri., or some of the sulphates, as well as inhalations with chlorine gas and fomentations.

In order to more clearly show the duality of croup and diphtheria, I think the shorter way is to place the difference in tabulated form:

Croup.	*Diphtheria.*
Inflammation—Local and sthenic.	General and asthenic.
Fever—Inflammatory.	Typhoid.
Effect on Kidneys—None.	Albuminuria.
Bowels—Costive.	Diarrhea.
Cough—Brassy, frequent and troublesome.	Soft and not troublesome, save in rare cases with apnœa.
Dyspnœa—Severe.	
Pulse—Hard and frequent.	Soft and frequent.
Age—Children from one to nine years.	No age is exempt.
Condition—Affects rich and poor alike.	Principally the poor, in unhealthy localities.
Cause—Cold.	Blood poisoning.
Membrane—Fibrinous and secreted from the mucous membrane.	Cellular, involving the substance of the mucous membrane.
Complications — Spasms, rarely bronchitis, thrombus, poisoning by carbon in blood.	Glandular enlargements, paralysis, abscesses, bronchitis, thrombus, derangement of stomach, liver, kidneys, bowels and brain; rarely spasms.

Croup.	*Diphtheria.*
Climate—Cold.	All climates, generally malarial.
Seasons—Fall and winter.	All seasons.
Convalescence—Rapid.	Lingering.
Sequelæ—None.	Glandular, nervous and muscular diseases.
Death—Beginning at the lungs, or asphyxia.	At the heart, as from poisoning.

Cold Water Dressings.

DR. L. A. FOOTE'S REPORT TO CALHOUN COUNTY MEDICAL SOCIETY.

The physical properties of water are familiar to all. Its chemical composition is also well understood. It is a compound necessary to every form of life. Its great abundance is an evidence of its vitality, and yet an article so well known, so abundant, so bland, has lurking and hidden in its transparency a power capable of producing an apoplectic attack, and destroying life, of impressing the nervous system so powerfully as to produce convulsions and death.

Its therapeutic properties, we believe, are due to the combined action, or the product of two factors, viz., cold or heat, and moisture. We either wish to employ cold alone, or heat alone; moisture is always, when used as a therapeutic agent, combined with heat.

The history of water as a remedial agent, is obscure, and clouded by prejudice. The Athenians recognized the value of water to health, and in disease, by expending a large amount of money for the erection of public bathing-houses. In many countries the bath-houses were dignified by the name of a saint; thus partaking of the superstition of the age. In some countries bathing was enforced by law.

The story is told by an American traveler, of an Indian chief who postponed an engagement with his pale-faced friend, on account of a fever which he cured by enveloping himself in a hut constructed of mud, or skins, in which large hot stones were placed, and water dashed on them, the vapor of which caused a profuse perspiration, when he came out, and ran down to the river, plunging through a hole in the ice, and was cured of his fever.

Notwithstanding water as a remedy can boast of great antiquity, yet it has remained for modern investigators to properly estimate its value; and it is but very recently that it has taken its proper place in the catalogue of remedies.

Dr. J. H. Kellogg, in an excellent little work, entitled "The Uses of Water," says of its history, "In the early part of the eighteenth century, a Sicilian, named Fra Bernado, acquired the title of 'Cold Water Doctor,' from his exclusive use of cold water in treating the sick."

At the very beginning of the eighteenth century, Floyer published a history of bathing, which contains accounts of many remarkable cures effected by means of the bath. A Mr. Hancock, a clergyman, published in 1722 a tract entitled "Common Water the Best Cure for Fevers." In the latter part of the last century, Drs. Jackson and Currie each published reports of cases of fever, in which they had found the use of the bath a remedy of remarkable efficacy. Dr. Currie obtained many followers for a time, but no very deep impressions were made upon the public mind, though his cures were authentic, and were very ably reported.

In 1825, Priessnitz, a native of Graefenberg, Silesia, met with an accident, thereby fracturing three ribs. He treated himself with water, and made a good recovery. Priessnitz did more to attract public attention to the use of water as a remedy than any man previous to his age. He was an uneducated farmer, with no medical knowledge, but a man of sound judgment and great tact, exacting the most implicit obedience to his mandates from his patients.

Sir Charles Scudamore describes him as follows: "Of Priessnitz himself, I shall say a few words, and describe my impressions on first seeing him. His countenance is full of self-possession; rather agreeable, mild, but firm in expression, with an eye of sense, and a pleasing smile. The small-pox, and the loss of some front teeth from an accident, impair his good looks. His manners are sufficiently well bred. On closer acquaintance, you discover he is quick in perception, is reflective, prompt, however, in decision, simple and clear. He inspires his patients with the most entire confidence, and he exacts implicit obedience."

Sir John Forbes, M. D., F. R. S., in the *British and Foreign Medical Review*, says, "In consequence of the modern water cure having been originated by a non-medical and uneducated man, and having been subsequently, for the most part adopted by lay practitioners, or by medical men of equivocal reputation, and yet more from the system being held out as a panacea, or cure for all diseases, with an exclusive scorn of medicinal aid, the medical profession, as a body, have naturally enough, and not inexcusably, treated it with much contempt, not to say aversion, and have shown a pretty general determination not to admit it into the catalogue of therapeutic means. Indeed, it is regarded almost as a violation of professional etiquette to mention this subject in the language of toleration, much more to speak of it with approbation. If it shall appear, however, as we believe it will on further examination, that the external application of cold water is capable of being beneficially applied in the cure of diseases in modes of greater efficacy, and to a much greater extent than has been hitherto practiced by medical men, there remains only one course for the members of the profession to pursue, viz., to adopt the improvements of such, regardless of their origin or their past or present relations."

Dr. Flint, president of the New York Academy of Medicine, in a paper read before the society, entitled, "The Researches of Currie, and Recent Views Concerning the Use of Cold Water," says, "The relations of my own experience will of necessity be stated in a few words, as my employment of the remedy has heretofore been much more limited than it will be in the future, if my life be spared."

However much men of science may regret the abuses of water and deplore its use, as an exclusive remedy, it is necessary, in the light of modern researches, to lay aside our prejudices, to cease to scoff and scorn and brand all who use it as quacks and irregulars. It is obligatory upon us, as conscientious physicians, to recognize a remedy of such power as water, and wrest it from charlatans, and give it the benefit of the skill of scientific knowledge.

If we have succeeded by the foregoing in establishing, or assisted in any way to make the claims of water as a remedy in disease plain to you, we will now proceed to enumerate some of the diseases to which the remedy is applicable, and to point out some of the contra-indications.

We acknowledge at the outset, that there are prejudices to overcome, that there is the stigma of quackery, which has been hurled, and with good reason, at it, and, besides, those who desire to use it, find many obstacles in the way. It is not always convenient, much easier to do up some powders and order some physic, than instruct in the use of a bath, or water dressing.

In fevers we have a potent remedy in the wet sheet-pack, or sponge bath; it acts by reducing the temperature. As abnormal heat is the most dangerous symptom in fevers, very many practitioners are using cold water with marked success. You all remember a paper read before the Association by Dr. J. H. Kellogg, of Battle Creek, giving in detail the history and treatment of about fifty cases of typhoid and typho-malarial fever, using cold water as an antipyretic, making it the main remedy, but supplementing such other measures as the condition of the patient demanded. I believe he lost only two patients of the fifty, and one of them had incipient phthisis.

In the various chronic diseases, cold water is highly spoken of—as rheumatism, gout, malaria, dyspepsia, constipation, chronic stages of whooping-cough. In spasmodic asthma, employed during the interval, it is beneficial by correcting the morbid sensibility to atmospherical changes. In nervous diseases, and in cases of paralysis, consequent on severe inflammatory attacks of the brain and spinal cord, where no disease of the brain is present, it is of benefit in some cases, while in others it seems to increase the malady—in chorea, epilepsy, hysteria, scrofula, spermatorrhœa, prostatorrhœa, leucorrhœa, menorrhœa. In the latter affection the sponge bath is the more applicable, but the hip bath used during the intervals sometimes prevents an excessive flow of blood.— *Waring.*

In pneumonia a cold compress applied over the chest is a powerful remedy, and one that should be used with care; in typical cases occurring in robust individuals, and of a sthenic type, the remedy is of great value. Dr. M. W. Tomlinson is very partial to the above manner of using cold water, and to him I am indebted for the valuable suggestion. There are other diseases where the remedy can be used, but we will not attempt to enumerate them, but leave them to the judgment of the practitioner.

In surgery, "cold water dressings" are deservedly popular. In all the acute and sthenic inflammatory attacks, we can frequently prevent suppuration by the efficient and continued applications of cold water, and thereby bring about resolution; cold should be applied early, and not after suppuration has commenced, or threatens, and never when gangrene is imminent. In many forms of chronic ulcers, where the parts are relaxed, the vessels wanting in tone, and a condition of local debility, the application of cold water, by means of an irrigating apparatus, will be found very useful in giving tone to the part, vigor to the relaxed vessels, and a general improvement in the disease. A convenient apparatus may be improvised by suspending a large-mouthed bottle over the affected joint, and making a syphon of a roll of candle wicking. A steady dropping can thus be secured without the constant attention of the nurse. As inflammation is essentially the same in whatever location we meet it, it is only necessary to point out a course to pursue in a given case. We are then possessed of a key to the treatment of all inflammatory attacks, hence I will not take up the time of the Association in detailing the course to pursue in all special inflammations to which cold water is useful.

Cautions in the use of Cold Water:

1. It should never be employed when there is any sense of chilliness, although the thermometer indicate a morbid degree of heat.

2. It should never be employed in the cold stage of fever.

3. It should never be employed when the heat, measured by the thermometer, is less than, or equal to the natural heat, 98 degrees Fahr., notwithstanding no sense of chilliness.

4. It should never be employed when the body is under a profuse sensible perspiration.

5. It should never be employed if the fever be complicated with any visceral inflammation.

6. The earlier in the disease it can be employed the more benefit will be derived from it. In more advanced stages, however, it will be found to moderate the symptoms, but in no case will it "cut short" the fever as supposed by Dr. Currie.

7. The patient should always immerse his hands for a few moments in the fluid before it is applied to any other part of the body; it prevents the shock being too violent.— *Waring.*

In bringing this subject before you, I am aware I have been somewhat presumptuous, as there are men here who have made an especial study of this matter; but I trust I have put myself in the way of learning more of a remedy for which I have a profound regard.

Sir Charles Scudamore says, "In reflecting upon the virtues of water, as a remedy, when properly applied, for the alleviation or cure of many forms of disease, we find another occasion of gratitude to the Great Creator, who has in his beneficence provided so convenient an antidote for numerous evils which 'flesh is heir to.'"

The careful study of nature is essential to the making of a physician; and he who attentively follows her precepts will the most readily be conducted to a knowledge of disease and the rational method of cure.

The New Orleans physicians in a recent extended discussion published in the *New Orleans Medical Journal* give us the following advice respecting the treatment of yellow fever. Absolute rest, support and the management of the symptoms as they arise. Only in these things could they agree.

Strangulated Hernia—Operation—Recovery.

BY J. HENRY CARSTENS, LECTURER CLINICAL MEDICINE, ETC., DETROIT MEDICAL COLLEGE.

Mrs. St., aged 37, octoroon, mother of fourteen children, youngest two years. Shortly after the birth of her last child, while working, a swelling appeared in her right groin. This was diagnosed as a hernia. She wore a truss, and it troubled her very little. July 6th she left her truss off, and, while lifting, the hernia came down, and could not be reduced. She had little pain, no vomiting or other symptoms.

July 9.—I was called and found a large direct inguinal hernia, some vomiting, pain, etc. I ordered hot applications, morphine, and gave other appropriate directions. The next day went with my student, Mr. Rudolph, administered chloroform and tried reduction, but without success. With an exploring needle I then tapped the tumor, drawing off about two ounces of bloody, serous fluid, when reduction apparently took place easily. Gradually, during the next four days, the swelling re-appeared, and the severe symptoms of strangulation developed, and I decided to operate.

July 13.—Assisted by my friends, Drs. Webber and La Ferté, and several students, the operation was performed in the usual way. When I got to the external ring I found the peritoneum and some of the omentum adhering most firmly to the ring. This explained the failure of the first attempt at reduction; I had drawn off the serum and reduced the intestine, but the adherent omentum remained, and the patient being a fat woman, it could not be detected. After breaking with considerable force the adhesion, I returned all into the bowel and sewed the wound, except the lower edge, wherein I placed a drainage wick. Prognosis was considered very doubtful by all present, as several spots looked gangrenous. But the woman rallied well, her temperature never rising above 100° F. Very slight symptoms of peritonitis developed, but soon subsided. In two weeks she was perfectly well, the wound healed and *the hernia radically cured.* I attribute her rapid recovery to the use of the *drainage wick*, which I removed the third day after the operation, the wound having healed by first intention throughout, except where the wick was. The amount of blood and serum which was drawn off by the wick was remarkable, and would, if it had remained in the canal or abdominal cavity, have excited severe peritonitis, etc., and probably a fatal result would have ensued. The case is interesting because the woman was only thirty-seven years old, and had had fourteen children; the strangulation had existed for nearly one week, and the recovery was so rapid and without dangerous symptoms.

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

REMEDY FOR POISON IVY (RHUS TOXICODENDRON). — Dr. S. A. Brown, U. S. N., in *New York Medical Record*, reports that he has found bromine dissolved in olive oil, cosmoline or glycerine, in the proportion of ten to twenty drops of bromine to the fluid ounce of oil, a specific for the eruption caused by contact with the poison ivy and kindred plants, as the poison sumach, etc.

The eruption promptly begins to diminish after the first thorough application, and disappears in twenty-four hours, if the application is made three or four times, or about once in six hours. The parts should be washed in Castile soap and water about once in twelve hours. The bromine mixture should be renewed every twenty-four hours, because the bromine will get out of the bottle in spite of care. Stand the bottle containing the mixture on the cork end in the intervals of using.

SWAMP FEVER.—T. C. S. Whitsitt, M. D. (*Richmond and Louisville Medical Journal*, June, 1878), describes the so-called malarial hemorrhagic fever, swamp fever, or hæmaturia, as it is called in the lower Mississippi Valley. The disease is seen most in autumn. It is not seen among the negro race. The disease is ushered in by a rigor, which is accompanied, or soon followed by a yellowness of the skin and hemorrhage from the kidneys. If the rigors recur, as they frequently do, they recur at irregular intervals. The hemorrhage is usually aggravated by each successive chill. Occasionally the yellowness of the skin and hemorrhage precede the rigor by a few hours. Usually the yellowness of the skin is not fully developed until about twenty-four hours after the first rigor.

In a portion of the cases an intermittent fever of the ordinary type precedes the disease. But the intermittent does not yield to the free use of quinine. Very often there is great prostration, and the patient is apt to complain of extreme fatigue while lying in bed.

When vomiting occurs the matters ejected are commonly of a vivid green, but sometimes of a coffee-grounds appearance. Generally there is a high fever, with a frequent, rather full, but weak pulse. There is no periodicity noticed in the disease, and most of the cases are mild at the outset. In some cases the disease has been known to recur. Most men look upon this disease as a form of pernicious or malignant remittent fever, but the doctor is of the opinion that it is a new disease, or a hybrid, partaking of the character of both malignant remittent and yellow fever, and mostly resembling the latter. Quinine the doctor has found to be negative in its effect, and calomel positively injurious.

The treatment that the doctor has adopted is tinct. ferri chlor., in twenty-drop doses every four hours, buchu tea, to wash out the kidneys, the mineral acids, and later, two-grain doses of quinine as a tonic. Under quinine in large doses and calomel, the patients died, but the new treatment saves them.

(Ergot in full doses would seem to be indicated in similar cases.—ED.)

MENTAL DISTRESS AS A CAUSE OF PHTHISIS.—As strikingl illustrating the influence of mental distress upon the productio of consumption, Dr. H. A. Johnson gives the following facts During 1871, there were in Chicago 6,975 deaths, and the proportion of consumption to all deaths was 7.08 per cent. During 1872 there were 10,156 deaths, and the proportion of consumption to all deaths was 7.09 per cent. One hundred thousand people were made homeless by the great fire. During the fourteen months which followed, 89,724 persons were treated by the physicians of the Relief and Aid Society. For the year 1872, the proportion of deaths from consumption among the fire patients to all deaths among the same patients was twenty-three per cent, while the proportion of deaths from consumption in the whole city to all deaths was only 7.09.

MARKS OF WEAK VASO-MOTOR SYSTEM. — The characteristic of a person with a weak vaso-motor system are given by Dr. Hume (*The Practitioner*, July, 1878) thus: A soft moist eye, a dilated pupil in a blue iris, and a thick, drooping upper eyelid. The nervous system not well balanced is easily disturbed by any excitement. The heart beat is irregular, subject to palpitations and tumultuous action on slight exertion, or sudden emotion. The pulse is small and irregular, the veins have a tendency to dilate, and eventually to become varicose, and the capillaries readily congest on exercise.

INFANTILE PARALYSIS.—William Adams, F. R. C. S. (*Obstetrical Journal*, February, 1878), thus compares the two varieties of infantile paralysis:

1. *Period and Mode of Seizure.* Cases of infantile paralysis with flaccid muscles never occur at or immediately after the period of birth, the time when the worst cases with rigid muscles occur. With this exception, the two classes agree as to the period of seizure, which will occur at from six to eighteen months, during the first dentition. Both may occur at later periods, as the result of febrile disorders, or from convulsive seizures. The flaccid class are sometimes ushered in by a febrile attack, accompanied by acute pain in the limbs,

simulating rheumatic fever, as late as five or seven years of age; but this condition does not belong to the rigid variety.

2. *Mental Faculties.*—In cases of infantile paralysis with flaccid muscles, the mental faculties are never in any way affected, while the converse is true in the rigid variety.

3. *Muscles Involved.*—Fewer muscles are involved in the cases of the flaccid variety. Usually only single groups, but in the rigid variety all the muscles of a limb, or perhaps of two or more limbs, are most generally involved.

4. *Temperature.*—In the flaccid class the temperature of the paralyzed limbs is very much lowered, while in the rigid variety the temperature is nearly normal.

5. *Tendency to Recovery.*—In the flaccid classes there is always a tendency to a spontaneous recovery. The rigid class shows no spontaneous tendency to improvement, but may be greatly benefited by surgical treatment.

SODIC SALICYLATE IN DIABETES MELLITUS.—*Präger Med. Woch.*—*Chicago Medical Journal*, June, 1878.)—Ryba and Plummert have reached the following conclusions: (1) In daily amounts of two drachms, it determines a decided diminution in the amount of sugar excreted. (2) The best results are to be obtained in the more recent cases. (3) The above diminution may be made more striking by restricting the hydrocarbonaceous elements of the diet. (4) The polyuria usually yields consentaneously with the glycosuria. Other diabetic symptoms (*e. g.*, bodily weight) are favorably influenced. In two cases the symptoms were at first aggravated, but soon yielded under this treatment.

PERCHLORIDE OF IRON IN THE TREATMENT OF CROUP.—(*L'Union Medicale*, July 25, 1878.)—Dr. Palvadeau is the author recommending this treatment, at least in the manner in which he employs it. Considering membranous pharyngitis and croup as two diseases, which differ only in the seat of their morbid manifestations, and having had a large success in the treatment of the former by the topical and internal use of perchloride of iron, he determined to employ it locally also in croup. He mixed fifteen drops each of perchloride of iron and water, and injected five to six drops of the mixture, by means of Pravaz' syringe, into the trachea, just beneath the thyroid cartilage. He then cauterized the false membranes, and two hours afterwards an emetic was given. Several shreds of membrane came away. In the evening he repeated the little operation, and during the night much more was ejected, and the child went on rapidly to recovery. In another case, where the prognosis was most grave, after the third injection perfect casts of the larynx and trachea were expectorated, and convalescence set in. To the question of the danger of the operation, he replies by asking another: Can the slightest comparison as to gravity be instituted between my little operation and tracheotomy? He recommends that this treatment be commenced as soon as the diagnosis is well established, for, should the disease progress notwithstanding the injections, we can still have recourse to tracheotomy.

Chrysophanic Acid Ointment in Psoriasis.—(*Wiener Mediz Presse*, No. 14, 16, 1878—*The Doctor*, June 1, 1878.)—Prof. Neumann, the eminent dermatologist of Vienna, in an able paper adds his testimony to the value of chrysophanic acid in the treatment of psoriasis. In his summary he says:

1. That chrysophanic acid derived from goapowder, is an excellent remedy for herpes tousurans, pityriasis versicolor and psoriasis vulgaris.

2. Psoriasis, in its earlier stages, begins to disappear after a few applications of the drug, and in a far more unequivocal manner than under any other remedy that has ever yet been used against psoriasis.

3. Even inveterate forms of the disease can be abolished by means of chrysophanic acid, and it is quite the exception to find them oppose any protracted resistance to it.

4. Chrysophanic acid is a perfectly painless application to the diseased skin. The morbid phenomena occasioned by it on the healthy skin, result apparently from the admixture of resinous matter with the acid.

5. As a result of this mode of treatment, psoriasis belongs no more to those skin diseases which in so high a degree are a source of misery to the patient, and it has now become an easy matter to cure relapses. Every patient with psoriasis that I have as yet treated by this means, gives the palm, without hesitation, to this method of treatment in preference to others. In any case, this, at the least, is emphatically true, namely, that the therapeutics of skin diseases have for the last ten years been enriched by but few remedies which have been crowned by so eminent a success as the one in question.

6. There are other skin diseases also which are curable by chrysophanic acid, but upon these I will not report until I have accumulated more material.

SUDDEN DEATH IN TYPHOID FEVER.—Dr. H. Huchard (*L'Union Medicale*, Sept. 15 and 25, Oct. 2, 4, 6, 11 and 18, 1877.)—This accident is mentioned far back in the history of typhoid fever, for we find cases reported, though without comments, in the works of Chomel, Andral, Graves, Wunderlich, Griesinger and others. The first seriously examined cases are found in Zenker's work upon the "Lesions of the Muscular System in Typhoid Fever," in 1864, where he, having found in the autopsy of such a patient an advanced degree of granular infiltration of the cardiac fibers, asks the question, although the same lesion was not found in two other cases, whether death could not be explained by a paralysis of the heart? Dieulafoy's and Hayem's masterly papers appeared in the following years, and now sudden death in typhoid fever is admitted by all as a possibility, though the frequency of the occurrence, as reported by Libermann, 13 cases in 228 deaths from this fever, is not credited.

1. It is an accident of convalescence, usually taking place between the seventeenth and twenty-fourth days.

2. The death is a sudden one, when we least expect it, and when the patient feels quite well.

It occurs indifferently after moderate fevers, or after those where the adynamic symptoms are of the most serious nature, so that the physician cannot foresee the sudden fatal termination from the history of the case. It is at the moment of an emotion, of an effort, of a change in position, that the accident occurs. The patient suddenly sinks, the pulse disappears, the heart stops, the face becomes pale, and in a few seconds the patient is dead. It is therefore death by syncope; upon this point all agree. It is moreover a sudden death, and not merely a rapid one.

That it is not caused by an embolus or thrombosis of the pulmonary artery, as Griesinger believed, is proved by the fact that the patient shows no symptoms of asphyxia, nor do *post mortems* disclose the presence of clots. If the capillary emboli, described by Feltz, were present, death might be rapid, but it could not be sudden, and the patient would present, during life, some dyspnœa. But no autopsy has yet proved the existence of these emboli. Hence, the lungs are not in fault; nor is the brain, for sections in all of these cases have shown the absence of encephalic alterations, and during life no mention is made of cerebral symptoms of any importance.

The patients die, therefore, by syncope; but the mechanism of this syncope remains to be explained, and it is at this point that we find opinions diverging.

1. *The Theory of Reflex Action.*—It belongs to M. Dieulafoy, who says that the syncope is due to reflex action having its point of departure in the lesion of the intestine. "Irritation is transmitted by the fibres of the great sympathetic to the cells of the cord and bulb, where a change of direction takes place into different channels. If the pneumogastric alone is traversed, instantly fatal syncope takes place; if the respiratory nerves are similarly affected, there is a simultaneous arrest of the respiratory and heart movements; if some of the nerves of animal life are likewise irritated, we have the convulsions which sometimes accompany death."

The theory is founded upon physiology, for intimate physiological connections exist between the abdominal, sympathetic and the pneumogastric: crushing of the right semilunar
glion causes instant arrest of the heart. The sa

produced by striking lightly twice or three times upon the frog's epigastrium; also by direct irritation of the mesenteric nerves, either in their course or at their intestinal terminations; finally in Tarchanoff's experiment, where a portion of the intestine is brought out of the abdominal cavity, as soon as the part is inflamed the slightest touch of the finger will arrest the heart's action, while before the process has commenced even rough manipulation will not do the same. All of these experiments are without results if the pneumogastrics have been previously severed. Clinical observation shows that modified or inflamed intestinal mucous membrane has more tendency than any other to provoke reflex action; recall the frequent convulsions in children from undigested food or intestinal inflammation, the epileptiform movements due to worms, foreign bodies, etc., in the intestines; the symptomatic epilepsus ceasing after the expulsion of taenia. Such are the facts in favor of this theory.

He objects, that :

1. If the intestinal mucous membrane in typhoid fever could at any time serve as a point of departure for a reflex action, which would kill the patient, one would expect it when that membrane was modified, during the period of ulceration, in the course of the disease, and not in convalescence, when the lesions are being repaired, and when sometimes they are entirely healed.

2. In many diseases where the abdominal sympathetic is interested, as in general peritonitis, we do not see sudden deaths.

3. In a disease where the membrane of the large intestine is frequently widely ulcerated, and that of the small intestines greatly changed, in dysentery, we very rarely see sudden deaths, and where it has occurred pulmonary emboli are found.

4. Sudden deaths occur in the convalescence from typhus fever as in that from typhoid, and yet in the former disease there is no lesion of the intestinal mucous membrane.

5. Sudden deaths have been reported from intestinal worms. w common is the latter trouble compared to typhoid fever,

and yet how few are the deaths? Because in the first there does not exist as in the second, those alterations of the myocardium and the accompanying cerebral anæmia which so powerfully contribute to render an accidental syncope permanent, and to prolong the arrest of the heart.

M. Dieulafoy's explanation is therefore incomplete, for although this sudden termination of typhoid fever by syncope is well demonstrated, we do not know why or how this syncope is produced, nor why nor how this syncope continues and thus becomes fatal.

DIPHTHERIA—ITS CAUSATION.—Dr. W. N. Thursfield (*Sanitary Record*, Sept. 8, 1878), in a very practical paper, presents the results of a very wide experience. From this he shows that diphtheria everywhere prevails inversely to typhoid fever, with which disease it is closely allied, although an attack of typhoid fever affords no protection from a subsequent attack of diphtheria, nor *vice versa.* When introduced into a town diphtheria may become epidemic, and be disseminated by precisely the same channels as typhoid fever. The infection may be conveyed into any house by sewer gas or otherwise, altogether irrespective of dampness of structure, but its endemic breeding grounds are to be found in certain well defined spots in rural districts, where it is constantly liable to break out as if *de novo*, and the constant condition of these localities is structural dampness of habitation.

PRODUCTION OF FEVER—ITS MECHANISM.—All pathologists agree that in all fevers a *materies morbi* is taken into the system. Buss's view of its action is this (*Brit. Med. Journal*, Aug. 18, 1878): The virulent particles get into the blood ere exerting their special activity. Further, they or their successors escape from the capillaries into the surrounding tissues. They now exert an irritating influence upon the terminations of the sensory nerves, and gradually they are again taken up by the lymphatics and returned to the venous blood stream, circulate afresh, reach the periphery, and so on. Thus there occurs a gradual saturation of the entire tissues of the body with these irritating particles, and a permanent irritation of the entire sensory nerve terminations is kept up. Through the sympathetic constriction of the vessels will take place, and through the cerebro-spinal afferent nerves there will be developed an increased passive or even active muscular activity, and therewith an increased production of carbonic acid. Accordingly there will be persistently maintained a condition of more or less exaggerated contraction of the peripheral vessels, as also of increased production of heat. This excessive vascular contraction necessarily reduces in proportion the heat discharged. Also, the heat production is no longer influenced alone by the stimulus of cold, but simultaneously by the irritating particles also. Thus the temperature of the body reaches a definite abnormal height determined by the intensity of operation of the irritating particles, and will remain at the same so long as the irritating operation continues at the same amount.

WHOOPING-COUGH.—Dr. M. Mannheimer (*Chicago Medical Journal and Examiner*, August, 1878), gives his treatment of nine cases of whooping-cough by intralaryngial insufflations of a fine powder, composed of equal parts of sulphate of quinine and white chalk. Six of the cases were in the spasmodic stage, and three cases in the catarrhal stage. The ages of the patients varied from 4¾ to 16 years of age. The disease was entirely cured in from four to seven days, with one, or at most two insufflations daily. The average duration of treatment in these nine cases was six days.

(This result is very flattering, and is worthy of more extended notice than this. If other practitioners reach the same or a similar degree of success, whooping-cough will cease to be the dread of mothers throughout the land.—ED.)

NON-IDENTITY OF CROUP AND DIPHTHERIA.—J. R. Quinan, M. D. (*Maryland Medical Journal*, August, 1878), publishes a dissertation on the non-identity of croup and diphtheria, which is the best by far that has been published, at least of recent date. His bibliography is extensive, and his treatment of the subject exhaustive.

His conclusion is that primary true croup and diphtheria, as regards their etiology, contagiousness, type, mortality, duration, modes of death, local lesion, physiognomy and accepted treatment, are essentially *non-identical* morbid processes.

In a tabular form their differences may be expressed as follows:

Croup.	*Diphtheria.*
Purely local disease.	General blood disease.
Non-specific in origin.	Specific in origin.
Generally sporadic.	Generally epidemic or endemic.
Dependent on season.	Not dependent on season.
Most fatal to boys.	Most fatal to girls.
Greatest mortality at 2 years of age, and least beyond 10.	Greatest mortality after 10 years of age.
Fatal only by apnœa.	Fatal often by asthenia, without apnœa.
Rarely attacks adults.	Often attacks adults.
Pulse generally strong and resisting.	Pulse never strong and resisting.
Never fatal without exudation.	Sometimes fatal without exudation (Trousseau).
Primary and characteristic seat of exudation, trachea, larynx or bronchi.	Primary and characteristic seat of exudation, pharynx, fauces and tonsils.
Exudation never cutaneous.	Exudation often cutaneous.
Exudation superimposed *on* the mucous membrane.	Exudation *within* as well as *on* the mucous membrane.
Danger proportionate to the extent and persistency of exudation.	Danger not proportionate to the extent and persistency of the exudation.
Recovery, if at all, speedy, without sequelæ.	Recovery, if at all, slow and with sequelæ.
Albuminuria rare.	Albuminuria frequent.
No paralysis.	Paralysis frequent.
Bears antiphlogistic treatment.	Does not bear antiphlogistic treatment.
Seldom attacks more than once.	Often attacks more than once.
Not inoculable.	Is inoculable.
Never contagious or infectious.	Is contagious and infectious.

Eucalyptus in the Treatment of Fever and Ague.—H. P. Roberts, M. D. (*Practitioner*, June, 1878), gives the results of the treatment of fifty cases of fever and ague, by the tincture of eucalyptus. In three cases, one of which was quotidian, the remedy seemed to be successful; but in all the rest no good effect was obtained, and the paroxysms were not arrested until quinine was given in full doses. The doctor concludes that the tincture of eucalyptus is not valuable as an internal remedy.

Anæsthesia from Carbolic Acid Injected into the Rectum.—Dr. C. P. Putnam (*Boston Med. Jour.*, Sept. 26) reports a case of dysentery in which he washed out the colon with a solution of carbolic acid (ʒ ii to O ii of water). The subject was a boy four years old. About a pint and a half of the mixture was injected. As the nozzle of the syringe was removed, the patient said something, became numb, and commenced to jerk. Respiration was 30 per minute, and superficial pulse 160 at first, but in the course of the next two hours it fell to 120. Brandy was subcutaneously injected, and the bowels washed with water till it returned without odor. The patient was perfectly anæsthetized, for the injections gave no sign of muscular pain. At the end of two hours the patient showed some signs of consciousness, and spoke a few words. The next day he was apparently as well as ever.

On the Hypodermic Use of Morphia.—H. Gibbons, Sr., M. D. (*Pacific Medical and Surgical Journal*, June, 1878), gives the following useful hints as guides in the use of morphia hypodermically:

1. Avoid it in congestion and inflammatory conditions of the brain.
2. Avoid it in pulmonary congestion and where dyspnœa is not the result of spasm.
3. Avoid it in acute inflammatory affections of the heart and pericardium.
4. Avoid it in high febrile excitement.
5. Avoid puncturing a vein. The effect of introducing morphia into a vein is instantaneous. It is possible that the evil results were due in some cases to the entrance of the nar-

certain cases we may find one special sense, or certain districts of skin unaffected. The doctor is as yet unable to explain all the eccentricities of these peculiar cases.

SPINAL IRRITATION. — John E. Lockridge, M. D. (*The American Practitioner*, July, 1878), concludes from a long and varied experience in this complaint called "spinal irritation," that the disease in question is the result of a kind of *passive congestion* of the membranes of the cord, most probably of the *pia mater* and arachnoid. The engorgement may be serous or sanguinous, or both. The surrounding areolar tissue is more susceptible of congestion than the arachnoid, hence the irritation is most often met with in the cervical and dorsal regions, where this areolar tissue is the most abundant. Such being the doctor's view of the condition in spinal irritation, the treatment would follow as a matter of course, counter irritation and local depletion.

Therapeutics.

ACTION OF IRON IN EPILEPSY.—Dr. Gowers (*Practitioner*, Oct.) gives the following as his views respecting the action of iron in epilepsy:

1. In a certain proportion of cases of epilepsy, probably a minority of the whole group, iron does increase the frequency and severity of the fits.
2. In a large number of cases iron may be given without any recognizable influence upon the attacks.
3. In many cases in which its effect is injurious, the increase in fits does not occur until after the iron has been taken for some weeks, and in some cases the first effect of the drug is to cause a diminution in the frequency and severity of the attacks.
4. In some cases this beneficial effect, instead of being transient, is permanent, and great benefit results from the continued administration of iron; so that by its use alone some cases may be cured as far as the affection can be said ever to be cured by drugs.

Cases presented seem to corroborate these views. He thinks that in these cases iron acts on the nervous system like zinc, silver and other metals. The cases most benefited by the iron treatment are those midway between hysteria and epilepsy.

HOW DO BLISTERS ACT IN CASES OF MUSCULAR ATROPHY?—This question is experimentally answered by Dr. Gaskell in the *Journal of Physiology*. He shows that stimulation of the motor nerve of a muscle causes its vessels to dilate so as to allow the blood to circulate more freely through it and supply it with nutriment and oxygen during the period of contraction. Further, the same result takes place when the muscle is thrown into action reflexly by stimulation of a sensory nerve. Nor is it even necessary for a contraction to take place, the vaso-dilating nerves being distinct from the ordinary motor fibers. Thus, when an animal is poisoned by curare, irritation of a sensory nerve will cause a free flow of blood through the muscles, which would have been thrown into action by irritation of the nerve had the animal not been paralyzed. There is no reason to suppose that the same action will not occur in a muscle paralyzed by other causes, and we can now understand how a blister applied to the skin over a paralyzed muscle will cause reflex dilation of the vessels of the muscle, a free current of blood through it and restoration of its functional activity.

Skin Diseases.

CHRYSOPHANIC ACID IN PSORIASIS—J. C. Ogilvie Will, M. D. (*Practitioner*, June, 1878), gives notes of six cases of psoriasis treated with an ointment of chrysophanic acid.

The treatment adopted is to rub thoroughly into the affected parts twice daily an ointment containing 15 to 20 grains of the acid to an ounce of hot lard. In about six days the scales become loose and separate. In eight or ten days the diseased portions of the skin become supple, the infiltration becomes less, and the epidermis assumes a healthy appearance. The skin becomes colored by the action of the acid, where it is found necessary to apply the ointment over the surface generally, but, after the treatment is discontinued, a few warm baths will remove the epidermis that has been discolored. If the clothing is stained, the stains can be removed by a careful use of bleaching powders. In some of the cases, it was thought best to give small doses of Fowler's solution to prevent the return of the disease after the ointment had healed the skin, but there was no constitutional treatment during the applications of the ointment.

The stronger ointment, of 20 grains to the ounce, in one case irritated the skin very much. Generally, the milder ointment will be found to fulfill all the indications. If the ointment irritate the skin, its use must be stopped for a time.

TREATMENT OF HIRSUTES.—Dr. Hardaway (*Philadelphia Medical Times*, Sept. 28, 1878) destroys hairs by the galvanic current. A battery of from eight to twenty cells is employed. The negative pole is connected with a needle fastened in a penholder handle, while the positive electrode was connected with a sponge applied to the skin in the neighborhood of the part to be operated upon. With the aid of a small lens the needle was inserted into a follicle alongside of the hair, and retained until a whitish froth could be observed issuing from the mouth of the follicle. The hair could then be lifted gently out with forceps. Should it fail to come readily the operation should be repeated. With twenty elements a second or two was long enough to destroy the papilla; with fewer elements the operation was slower, but less painful. The size of the needle used was cambric No. 13.

The doctor had also injected into the hair follicle, by means of a hypodermic syringe, a single drop of the following solution: zinci chlorid., ʒ ij, aquæ, ʒ iij. The superfluous fluid should at once be removed.

Dr. Piffard uses a needle of irido-platinum wire, and pulls the hair out just before introducing the needle.

Dr. Duhring employs a simple glover's needle rotated in the follicle.

Public Health.

CONSUMPTION—DEATH RATE IN NORTHERN STATES.—H. A. Johnson, M. D. (*Chicago Medical Journal and Examiner*, August, 1878), has an article reviewing the U. S. census for 1850, 1860 and 1870. From this and other sources he concludes in regard to the general death rate and the death rate of consumption in particular:

(1) The general death rate is diminishing in the whole United States.

(2) The death rate is diminishing in both the northwestern and northeastern groups of States.

(3) The diminution of the death rate has been greater in the northwestern than in the northeastern group.

(4) The death rate from consumption to population has been increasing in the whole United States.

(5) In the northeastern States, from 1850 to 1860 there was a marked decrease, and from 1860 to 1870 there was a marked increase to the death rate from consumption.

(6) In the northwestern States, from 1850 to 1860, there was a very decided increase, and from 1860 to 1870 a very small increase in the death rate from consumption.

(7) From the report of the three periods, 1850, 1860 and 1870, it appears that the increase in the death-rate from consumption for the whole period was greater for the northwestern than the northeastern States, while the absolute death rate from this disease in the northwestern States was still only a little more than one-half of that in the northeastern States.

Materia Medica.

ACONITE.—Starling Loring, M. D. (*Ohio Medical and Surgical Journal*, June, 1878), has an article under the above caption. Although there are many species of aconite, only the aconitum napellus is used in medicine.

The smallest quantity of the root known to have caused death is one drachm, of the alcoholic extract four grains, and of the tincture one fluid ounce (?)

The most ancient medical writers describe aconite as a poison, not as a medicine. Theophrastus, Dioscorides, Pliny and others, speak of it as a mysterious, subtle poison, of supernatural origin.

In mythological literature it (aconite) is said to have sprung from Cerberus. Dioscerides says that Aristotle took his own life by drinking an infusion of the root of the aconite. Galen wrote of aconite as a medicine for external use. Avicenna describes the mode of its action as a poison, and Hippocrates, according to Forsius, recommended aconite as a refrigerant in febrile heat. Matthiolus, Dœdens, Guaner and Bauhin add testimony to the poisonous qualities of the drug. Von Helmont asserted that it was capable of producing madness. Heraclæus Saxona used aconite, in 1600, as a remedy in plague. In 1657 the College of Physicians and Surgeons of Copenhagen decided that it is a poison, and generally fatal in sufficient quantities, but until the time of Stork, in 1761, it was not regarded as a medicine that might be prescribed in the treatment of ordinary cases. After Stork came Andræ and Hertz, the celebrated Dr. Murray, and Gemlin, and Plinck, while Scopoli said, "The most dreaded poison has become the best medicine."

Not until 1805 did Hahnemann write and make the statement that "aconite is capable of producing one hundred and forty-seven different symptoms in persons in health."

After Hahnemann such distinguished men as Guthrie, Turnbull, Pallas, and, later, Fleming and Schroth made experiments and gave the results to the world, and it may be said that but little has been added to the knowledge of aconite since Fleming and Schroth wrote. (So much for the history of aconite, which the homeopathists claim as their discovery.)

COTO BARK—ITS PROPERTIES.—Fronmüller (*Wien. Med. Presse.—Phil. Med. Times*, Sept. 28, 1878) condenses our present knowledge of this new drug. Like jaborandi, it is derived from the forests of Brazil. As found in the shops, it consists of irregular pieces, flat, or slightly curved, two or three meters in length, and eight to fourteen millimeters in thickness. Color is brownish red; odor aromatic; taste acrid; somewhat bitter; neither slimy nor astringent.

Wittstein found as its chief constituents an ethereal oil, a volatile alkaloid, like propylamin, or trimethylamin, smelling like herrings, and soft and hard resins.

Lobst has found in the bark some fifteen per cent of a crystallizable substance, called cotoin, derived from ethereal maceration, and having the composition of $C_{21} H_{20} O_6$. It crystallizes from water in light pale yellow four-sided prisms. The taste of these is biting, and their reaction neutral. It dissolves slightly in cold water, and easily in hot.

Dr. Gietel, of Munich, has clinically used the bark and a tincture of it. He concludes that in this form it is a specific in diarrhea.

Burkart and Riecher, from experiments with cotoin, reached similar conclusions.

Fronmüller has used coto in some two hundred cases of various diseases, of which ninety-three suffered with colliquative diarrhea, and ninety-one from sweating of the same grave character. In most cases the diarrhea was checked, and good stools obtained. Large doses gave the best results. Coto has the advantage over other remedies used in diarrhea in that it *improves* the appetite. A medium dose of the tincture (1 part of bark to 9 of 85 per cent alcohol) is 50 drops thrice daily.

CINCHONA ALKALOIDS COMBINED WITH OPIUM.—Dr. P. G. Skillern (*Med. Times*, Sept. 28, 1878) adds his clinical evidence to the value of the above combination. He claims that (1) By a combination of the cinchona alkaloids with opium, a much better effect is obtained; a paroxysm being aborted with much more certainty and a much earlier and more complete cure insured. (2) Only half the amount of cinchona is required. (3) It relieves any painful sensations which might be associated with periodic affections. (4) It secures exemption from certain disagreeable effects upon the brain, headache, tinnitus aurium, etc. (5) It enables the stomach to retain quinia much more readily. (6) Large and continuous doses of quinia may be given without producing cinchonism, if combined with morphia.

Diseases of Women.

DRAINAGE OF THE UTERUS IN PUERPERAL SEPTICÆMIA.—(*Berliner Klin.*, No. 24, 1877.—*L'Union Médicale*, June 20, 1878.)—Schède relates an interesting successful case of puerperal septicæmia treated by drainage of the uterus. A drainage tube was introduced into the womb, and maintained in position by means of a carbolized ($\frac{3}{100}$ solution) cotton tampon. Injections through the tube, continued until the water returned clear, were made thrice daily, and sodium salicylate was administered internally. After the first day the pus lost its fetidity; the tube was withdrawn on the fourth day, as the liquid was now of a sero-purulent character, only, and simple vaginal injections continued. After a month's treatment, the patient left the hospital, well.

ON HISTOLOGICAL ALTERATION OF THE UTERUS.—M. A. Courty, in *Annales de Gynècologie.*—The histological alterations of the uterus may be classed under three heads:

1. In the uterus, an in all other organs, one observes the histologic development of alterations that characterize the diathetic affections, fibro-sarcoma, tubercles, cancer, etc., and the alterations present, here as elsewhere, rather the characteristic elements, the same structure, the same origin, the same termination.

2. As in all the other organs, one observes best the alteration of tissues of the constitutional elements of those tissues produced with the development, with the evolution of the same histologic elements, and of the nutritious changes they undergo by the effect of their life, and all the influences of diverse morbid localizations. These are the characteristic alterations of inflammation, of suppuration, of engorgement, of hypertrophy,

of atrophy, of adipose, and atheromatous degeneration of vascular changes, etc.

3. In the uterus finally, herein differing from other organs, is not only found to undergo histologic changes we have spoken of as very often an evolution, rapid, and in accord with the mode of life of the uterus, but also there is manifested an evolution of tissue that is not analogous with that of other organs, not in appearance or shape, especially not in the activity of development, and which is in a continual state of progressive, or retrogressive change of organization, or disorganization, and peculiar and singular for that organ, constituted in an apparent definitive manner; and what are not seen in other organs, there are found absolute embryonic elements, not found normally, and without the pathologic state; the characteristic state of evolution continues more or less marked, oscillating constantly from a tendency to hypertrophy to a tendency to atrophy. It is this trait of the organization of the uterus, which is at once the most striking and peculiar.

Nervous Diseases.

CERTAIN SYMPTOMS OF NERVOUS EXHAUSTION.—George M. Beard, M. D. (*Virginia Med. Monthly*, June, 1878), in a paper read before the New York Academy of Medicine, April, 1878, thus defines *neurasthenia* to be a poverty of nerve force. It is to be distinguished from simple anæmia, with which it is frequently combined, and also from hysteria, to which it often leads. One may be nervously exhausted without being anæmic. In fact, some of the worst sufferers are full-blooded and fleshy, even some of our most noted athletes have been afflicted in this way. Neurasthenia is also to be distinguished from the numerous organic diseases with which it is so often, though not necessarily, associated. It is a type of a numerous class of functional nervous diseases, the pathology of which cannot be directly studied by the senses, but must be reasoned out deductively.

Some of the symptoms of neurasthenia are familiar to medical men, while other symptoms are only recognized by those who give their time to diseases of the nervous system. The symptoms are given as follows: Tenderness of the scalp—a phenomenon of cerebral irritation which is to the head what spinal irritation is to the spine. The technical name of cerebral irritations is cerebra-asthenia. Tenderness of the spine, spinal irritation, myelasthenia, and of the whole body. General or local itching, abnormalities of secretions, tenderness of teeth and gums, vague pains and flying neuralgias, flushing and fidgetness, tremulous and variable pulse, and occasional palpitations, sudden giving way of general or special functions, special idiosyncrasies in regard to food, medicine and external irritants.

[The development of idiosyncrasies through nervous sensitiveness—acquired or inherited—is the real philosophy of hay fever, a malady which has increased as culture and civilization have advanced, and which is found usually in those who have had some other nervous symptoms.]

Another idiosyncrasy developed by nervous exhaustion is sensitiveness to cold or hot water, still another, sensitiveness to changes in the weather. Other symptoms are a feeling of profound exhaustion unaccompanied by positive pain, ticklishness, desire for stimulants and narcotics, insomnia, nervous dyspepsia, partial failure of memory, sexual exhaustion, deficient mental control, seminal emissions, partial or complete impotence, changes in the expression of the eyes and countenance, mental depression with general timidity, morbid fears of special kinds (agoraphobia and astraphobia), fear of society, sick-headache and various forms of head pain, pain and heaviness over the vertex and through the whole head, disturbances of the nerves and organs of special sense, muscæ volitantes, noises in the ears, localized peripheral numbness and hyperæsthesia, general and local chills and flashes of heat, local spasms of muscles. The interchangeableness of the symptoms is noteworthy, for in nervous exhaustion nothing is constant. The symptoms "chase each other like the shadows of summer clouds across the landscape."

The periodical and rythmical character of some of the symptoms is peculiar and of interest. One young man had attacks of nervous depression every day about noon, which ran through definitive stages, though lasting but a short time each day.

Strange as it may seem, nervous exhaustion is compatible with the appearance of perfect health. Nervous exhaustion seems to follow sunstroke, and may be found in a man of Herculean proportions. Nervous exhaustion is a modern disease —belongs preëminently to America, and is found chiefly in the North and East; belongs almost exclusively to the well-to-do classes, and must be studied in private practice.

The treatment of nervous exhaustion should be in general of a sedative and tonic character; should not be applied to any one of the special symptoms but to the whole condition. Electricity in general, applications with both currents, varied and abundant food, *massage*, in some cases absolute rest, in others gentle exercise; counter-irritation as indicated, by small blisters or the actual cautery, dry cold to the urethra for sexual exhaustion; internally, cannabis indica in small doses, combined with the bromides, strychnia, calabar bean, the preparations of zinc and arsenic, gelsemium and hydro-bromic acid, and caffein, together with malt, oil, the fats, fish, phosphates of various kinds, etc. The majority of the cases can be permanently relieved, if not entirely cured.

Physiology.

THE PHYSIOLOGY OF REPRODUCTION MADE EASY, OR THE ORIGIN OF SEX.—A. D. W. Leavens, M. D. (*Physio-Medical Journal*, September, 1878), says that observation and experiment have taught him that semen secreted by the right testicle, meeting or coming in contact with an ovum from the right ovary, will, if it produce anything, produce a male child; and that semen secreted by the left testicle, coming in contact with an ovum from the left ovary, will, if it produce anything, produce a female child.

To explain twins of different sexes, he says that an ovum has been detached from each ovary. To explain twins or triplets of the same sex, the doctor says that two or more ova have been thrown off by the same ovary.

To the objection raised that the spermatozoa are sexless, the doctor says that in every instance of incomplete castration of animals, the animal thus mutilated was only able to beget males or females, in accordance with this rule—males with the right testicle, and females with the left. If the spermatozoids were sexless before contact with the ova, partial castration would make no difference as to sex.

Again, to the objection made that the ejaculatory muscles force out semen from both vesicular seminales at the same time, the doctor says that only semen from the right testicle will impregnate an ovum from the right ovary, and *vice versa;* and although semen is discharged from both sides at the same time, in a healthy, complete animal, one side only becomes prolific unless met by ova from both ovaries, in which case twins or triplets, etc., would be the result of different sexes.

In cases of families of one sex, it is proved by careful examination that the mother suffered from a diseased ovary of the right or left side, as the children were girls or boys.

THE ABSORPTION AND EXCRETION OF WATER.—Dr. Skorezewski (*London Lancet*) reports an interesting series of observations on the relation, in time and quantity, between the absorption of water and the excretion of urine.

The observations were made upon men and rabbits, and in the latter provision was made to secure the urine as soon as it passed into the bladder. Spring water, soda water, and certain Russian mineral waters were employed in the observations. He concludes as follows: "After the injections of spring water, the quantity of urine did not increase immediately, in the case of either men or rabbits, but rose after a certain time, the longer the more water was taken. A longer period elapsed after the spring water than after the mineral water, before the increase in the urinary secretions occurred, and the more spring water was taken the longer was the interval, and the mineral water the shorter was the interval. The increase in the urinary secretion reached its height sooner after the mineral water than the spring water. The total greatest effect on the urinary secretion was obtained with soda water, the next with spring water, and the least with the mineral waters. The quantity of urine was in each case smaller than the quantity of water ingested, with the exception of that which was saturated with carbonic acid. The difference between the total quantity of liquid taken and the total quantity of urine excreted, was less after ordinary spring water than after the mineral water.

To ascertain the relation between the time and quantity of water absorbed and urine excreted, a second series of observations was instituted. Rabbits were killed at certain periods after the water was injected into the stomach, the excretion of urine being observed as before. Thus it appeared that the increase in the excretion of urine did not commence until after the whole of the water had been absorbed, and in the case of both small and moderate quantities of water, a period of ten or fifteen minutes passed after all the water had been absorbed before the effect on the urine was apparent. This result is true only of spring water; mineral waters behave differently. The increase in the excretion of urine occurs the earlier the absorption progresses. By the exclusion of certain possible causes for this difference, such as altered pressure in the abdominal cavity, direct irritation of the splenic nerves, or the effect of blood tensions, the conclusion is reached that the cause is the alteration in the blood consequent on the admixture with it of the saline substances in the mineral waters, the change in the blood acting as a stimulant to vaso-motor nerves.

MECHANISM OF HEAT REGULATION.—How is the heat of the human body rendered constant? Dr. Goodrich (*British Medical Journal*, August 10, 1878) answers this as follows: (1) Assuming a certain degree of contraction of vessels to correspond to the mean normal temperature of the body, then every influence which proceeds from a lower temperature is *pro tanto* cold; likewise every influence proceeding from a higher one is *pro tanto* heat; and therefore in the two cases *general* contraction is so much stimulus, or the reverse. (2) The contraction state of the vessels regulates the heat discharge from the surface of the body; but the quantity of blood to circulate remaining the same, the degree of contraction of the vessels will depend upon the thermal influence of the entire environment, and, therefore, as has been well pointed out, at least as much upon the temperature of the interior of the body as upon that of the external surroundings and the amount of heat loss connected with the latter. (3) In the contraction of vessels produced by it we recognize that cold acts as a stimulus to the sympathetic vaso-motor nerves, and brings to pass an activity of their proper musculature. The sympathetic system, then, governs the vessels which regulate the discharge of heat, and cold restrains that discharge. (4) With increase of the cold the heat production increases, unless it be carried to an extreme; and with decrease of the same the heat production decreases. Röhrig and Zuntz found that stimulating saline solutions applied to the skin were able to increase the heat production, and other observers got a similar result from other cutaneous stimulants. The plain inference is that the skin and muscles are correlated in the heat economy of the organism, and that any influence by which heat is withdrawn from the body is that stimulus, which acting upon the terminations of the sensory nerves of the skin and immediately subjacent structures, serves to maintain in a reflex way a permanent activity of the musculature.

ARSENIC AS A CAUSE OF FATTY DEGENERATION.—Dr. F. G. Pinkham (*Boston Medical Journal*, Sept. 19) reports a case of arsenical poisoning in which a *post-mortem* examination revealed extensive fatty degeneration in most of the abdominal organs. This with his other experience and study enables him to reach the following conclusions: (1) It is an established fact that arsenic in common with phosphorus, antimony and other poisons will cause fatty degeneration of the liver, kidneys, gastric glands, heart and other organs. (2) It acts after absorption, probably by its direct irritant power causing parenchymatous inflammation, the final stage of which is fatty degeneration.

(3) This effect may be produced in a few, certainly in ten hours after the ingestion of the poison. (4) Arsenic cannot always be detected by chemical tests in tissues which have experienced its extreme effects. (5) Fatty degeneration is a frequent result of arsenical poisoning. Probably either it or the preceding condition of granular degeneration always exists. (6) The discovery of fatty degeneration *post-mortem*, especially if widely diffused, should be regarded as presumptive evidence of poisoning, and as warranting a thorough chemical examination.

ON THE INFLUENCE OF THE CEREBRUM IN THE PRODUCTION OF EPILEPSY.—(Prof. P. Albertino, *Arch. Italiano Malatie Nervose.*)—When the convolution in the rear of the sulcus cruciatus of a dog is irritated by a Faradic current, a complete epileptic attack is developed, provided the animal is not under the influence of an anæsthetic; general convulsions appear with complete loss of consciousness; the animal bites its tongue, froths, pupils dilated and inmovable. The duration is about two minutes, and a stage of stupor follows; the experiments may be repeated during suitable intervals. The author could produce seven such attacks in the course of a day. The same experiments also succeeded with cats, but not with rabbits. If other parts of the brain covering are iritated except those mentioned, no attacks are produced or very much stronger currents are needed. As mentioned during anæsthesia no such attacks are developed. If the connective tissues of one hemisphere are removed and the uninjured are then irritated, the epileptic seizures are still found of the same severity on both sides; it may be therefore assumed that the irritation of the covering of the brain causes by reflex action the irritation of other motoric centers, which develop a two-sided action, and which Albertino suspects to be situated at the base of the brain.—*Medic. Chirurg. Rundschau.*

OBSERVATION ON THE BLOOD CURRENT IN MUSCLES.—(Dr. W. H. Gaskell *Centralb. of Med.*, 1876.)—During and after tetanus the flow of blood from a vein is increased. Section of the nerve causes in the a frog dilation of the artery and increase in the blood currents, noticeable with the microscope. The same influences are possessed by chemical, mechanical and electric irritations. The dilation is always preceeded by a period of latency. During continued electric irritation of the motor nerve the dilation is succeed by a contraction which gradually passes the normal caliber, only to slowly return to the latter. To a few currents the artery responds with a few precise dilations. Even when the blood current in a muscle has nearly ceased, the induction current is sufficient to fill the empty capillaries. The dilation of the vessel occurs a marked period before the filling of the same.—*Medic. Chirurg. Rundschau.*

A HINT TO PHOTOGRAPHERS.—Thomas Buzzard, M. D., in the *Cincinnati Medical News*, for May, 1878, gives this hint to photographers: The strain upon the eye caused by fixing the sight on one point for several seconds is such that the vision bcomes indistinct and the eyes have a staring appearance.

To obviate this inconvenience to the sitter the doctor marked on a piece of white paper the figures from I to XII, as found on the face of a clock. He placed the paper on a post near enough to the sitter to be within easy range of vision, and directed that the eye should be moved leisurely from one figure to another "around the clock." It was found that the sitting was completed without any sense of fatigue or discomfort, and the definition of the eyes in the picture was much better than by the old plan of looking steadily at one point.

Surgery.

CHOLECYSTOTOMY.—J. Marion Sims, M. D. (*British Medical Journal*, June 8th, 1878), has made the operation of cutting open the gall bladder through the abdominal walls, and because it is new the operation must necessarily be christened, hence the name, Cholecystotomy. The operation was performed under the antiseptic spray, and so far was successful, but it seems was not performed early enough to prevent the blood poisoning of jaundice.

SIR HENRY THOMPSON, F. R. C. S., M. B. (*British Medical Journal*), has applied the microphone of Prof. Hughes to the detection of minute fragments of stone in the bladder. He says that generally the unaided ear can detect the notes caused by contact of a sound introduced in the bladder with fragments of calculi, but occasionally it is not so, and then the microphone is called to his aid.

RECTAL EXAMINATION BY THE HAND IN THE RECTUM.—T. Spencer Wells, F. R. C. S. (*British Medical Journal*, June 15th, 1878), states that he has employed this method in two or three cases of very doubtful diagnosis, and must confess that he has not gained any more knowledge or information than he could gain with the finger in the vagina or rectum combined with pressure on the abdomen.

A NEW METHOD OF COMPRESSING THE COMMON ILIAC ARTERY.—Richard Davy, M. B., F. R. C. S. (*British Medical Journal*, May 18th, 1878), has an article and an illustration setting forth the advantages of this new mode of compression of the common iliac artery. The method consists in introducing into the rectum of the patient a smooth round wooden lever, and carrying the end thus introduced high enough to reach the common iliac as it crosses the last lumbar vertebra and compression is made by elevating the projecting arm of the lever the perineum acting as a fulcrum. But little force is needed to compress the artery, and hemorrhage is perfectly controlled if the assistant holds the lever with a firm and steady hand. This is of a less serious nature for compression than the compression of the aorta. By means of an Esmarch's bandage and this method of compression, a thigh can be amputated at the hip joint with very little loss of blood. Mr. Davy suggested this method of compression to Mr. Holmes, and wrote to the *British Medical Journal*, June 20th, 1874.

INTESTINAL OBSTRUCTION—ITS DIAGNOSIS.—Dr. Jonathan Hutchinson (*British Medical Journal*, August 31st, 1878) admirably condenses the points of diagnosis of intestinal obstruction as follows: When a *child* becomes suddenly the subject of symptoms of bowel obstruction it is probably either intussusception or peritonitis. When an *elderly person* is the patient, the diagnosis will generally rest between impaction of intestinal contents and malignant disease. In *middle age* the causes of obstruction may be various; but intussusception and malignant disease, both of them common at the extremes, are now very unusual. Intussusceptious cases may be known by the frequent straining, the passage of blood and mucus, the incompleteness of the constipation and the discovery of a sausage-like tumor, either by examination *per anum* or through the abdominal walls. In intussusception the parietes usually remain lax, and there being but little tympanites it is almost always possible without much difficulty to discover the lump by manipulation under ether. Malignant stricture may be suspected, when in an old person continued abdominal uneasiness and repeated attacks of temporary constipation have preceded the illness. It is also to be noted that the constipation is often not complete. If a tumor be present and pressing on the bowel it ought to be discoverable by palpation under ether through the abdominal walls, or by examination by the anus or vagina, great care being taken not to be misled by scybalous masses. If repeated attacks of dangerous obstruction have occurred with long intervals of perfect health, it may be suspected that the patient is the subject of a congenital diverticulum, or has bands of adhesion, or that some part of the intestine is pouched and liable to twist. If in the early part of a case the abdomen become distended and hard, it is almost certain that there is peritonitis. If the intestines continue to roll about visibly it is almost certain that there is no peritonitis. This symptom occurs chiefly in emaciated subjects, with obstruction in the colon of long duration. The tendency to vomit will usually be relative with three conditions and proportionate to them. These are, (1) the nearness of the impediment to the stomach; (2) the tightness of the constriction, and (3) the persistence or otherwise with which food and medicine have been given by the mouth. In cases of obstruction in the colon or rectum, sickness is often wholly absent. Violent retching and bile

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vomiting are often more troublesome in cases of gall stones or renal calculus simulating obstruction, than in true conditions of the latter. Fæcal vomiting can occur only when the obstruction is moderately low down. If it happens early in the case, it is a most serious symptom, as implying tightness of constriction. The introduction of the hand into the rectum, as recommended by Simon, of Heidelberg, may often furnish useful information.

INTESTINAL OBSTRUCTION—ITS TREATMENT.—Dr. J. Hutchinson (*British Medical Journal*, August 31st, 1878) made the following interesting memoranda for treating intestinal obstruction: (1) In all early stages and in all acute cases abstain entirely from giving either food or medicine by the mouth. (2) Use anæsthetics promptly. Under their full influence examine the abdomen and rectum carefully before typanites has concealed the conditions. Administer large enemata in the inverted position of the body. If advisable, practice abdominal taxis. If you do not at first succeed, do it repeatedly. (3) Copious enemata, aided perhaps by the long tube, are advisable in almost all cases, and in most should be frequently repeated. (4) Fluid injections may be sometimes replaced by insufflation of air in cases of invagination, since air finds its way upwards better and is more easily retained. It is, however, somewhat dangerous, and has perhaps no advantages over injections with the trunk inverted. (5) Insufflation is to be avoided in all cases of suspected stricture, since the air may be forced above the stricture and there retained. (6) Saline laxatives are admissible in certain cases where impaction of fæces is suspected, and in cases of stricture where fluidity of fæces is advisable. (7) Opium must be used in proportions to the pain which the patient suffers. It should be administered hypodermically or by the rectum, and should be combined with belladonna. If there be not much pain or shock it is better avoided, since it increases constipation and may mask the symptoms. (8) A full dose of opium administered hypodermically will put a patient in a favorable condition for bearing a prolonged examination under ether and attempts at abdominal taxis. (9) In cases of uncertain diagnosis it is better to trust to the chance of spontaneous cure, or relief by repeated abdominal taxis, than to resort to exploratory operation; or in desperate cases iliac enterotomy should be done. Operations for the formation of artificial anus in the right or left loin may be resorted to whenever the diagnosis of incurable obstructive disease in the lower bowel is made. (10) The operation for the formation of an artificial anus through the anterior part of the abdominal wall and into the small intestines should be resorted to only in certain cases of insuperable obstruction in which the seat of the disease is believed to be above the cœcum. (11) In all cases in which the precise seat of the disease is doubtful, but the large intestine is suspected, the right loin should be preferred. If the colon here be found to be empty, the peritoneum may be cautiously opened and a coil of distended small intestine brought into the wound. (12) Cases of intestinal obstruction are strictly surgical, and not medical cases.

Preservative Properties of Surgical Dressings.—Dr. Bradford (*Boston Med. Jour.*, Sept. 2d, 1878) reports some recent experiments upon the preservative influence of different surgical dressings upon specimens of meat.

A piece of meat dissected from the freshly killed kitten, and put in a bottle which had been rinsed out with carbolic acid (1 to 20), putrefied in three days. This was the case in a bottle corked, and in one left open. A piece of fresh meat placed uncovered on a table at the side of the bottles, dried up, and eleven days later gave no odor. A piece of flesh wrapped in a water dressing, became foul in three days. Flesh dissected out under spray, and placed in Lister's antiseptic gauze, at the end of three weeks was found perfectly fresh, not being at all dried. Flesh wrapped up in lint wet with terebene, at the end of three weeks was fresh, and not dried. The same wrapped in lint wet with compound tincture of benzoin, remained sweet, but dried. Labarraque's solution (1 to 10), poured on a cloth and wrapped about the meat, delayed putrefaction, but did not entirely prevent it. At the end of three weeks the meat was foul, but not as putrid as that in the water dressing. The same can be said of a solution of sulphite of soda (1 to 10). A mold was found on this dressing, which, on examination, was seen to be penicillium glaucum. Meat wrapped up in dry cotton cloth, Dennison's absorbent cotton, oakum, salicylicized tow, or lint soaked in benzöic acid, became desiccated. Meat covered with gold-beaters' skin and wrapped in cotton, was slightly putrid at the end of three weeks. A piece of meat placed in a glass tube, the end of which was stopped by simple cotton, dried and remained free from putridity. Meat completely covered over by vaseline remained fresh. Pieces covered by Fuller's earth and charcoal became dry, and remained free from odor. The piece of flesh which at the end of three weeks was the freshest, being as soft as when first dissected off, and entirely free from odor, was that wrapped in the antiseptic gauze. The next in excellence was that in the lint wet with terebene. Thus it seems that Lister's gauze has a strict antiseptic action.

LUMBAR ABSCESS—NECESSITY OF MORE HEROIC TREATMENT. —Dr. E. Andrews (*Chicago Medical Journal*, October 1878) calls attention to the confusion of various authors in their treatment of lumbar abscess. This he regards as unnecessary, because surgery has irrevocably settled the following truths: (1) Large collections of pus undergo a disastrous putrefaction if they are opened to the external air, and hectic fever and fatal pyæmia are apt to follow at once. (2) If this opening be made so as not to admit the septic germs of the atmosphere, or if antiseptic injections and dressings are faithfully used the evacuation is usually free from danger. (3) Drainage tubes, when efficiently used, prevent the contraction of the outlet, allow free evacuation and admit of efficient antiseptic injections, and when such injections can be made to bathe the whole interior of an abscess they will almost invariably stop the suppuration with its whole train of disasters. To apply these principles to the treatment of psoas abscess he recommends to enlarge the opening so as to introduce a drainage tube into the internal sac. He outlines the proper course as follows: When the abscess points externally it should be aspirated, running the needle in obliquely in the thickest portions of the sac, so as to insure reclosure. To prevent septic results the needle and the skin should first be carbolized. When the cavity is partly filled again it should be aspirated a second, and if necessary, a dozen times. If the pus continues to form too persistently, the cavity can be washed out at the time of each tapping with carbolized water. Occasionally the puncture of the aspirator needle may fail to heal, and commence some day to discharge. The patient should be provided beforehand with means of instantly making a carbolized injection and dressing, without waiting for the surgeon. In some other cases the pus may be filled with curdy concretions so that it will not run through an aspirator or even through a large trochar. In this case a free valvular incision is to be made, the clots to be evacuated and an effort made at reclosure. If this effort fails the drainage tube is to be promptly used with any incisions and operations necessary to insert the tube well within the inner sac.

Notes on Surgical Work at Vienna.

BY ROLLAND C. HODGES, M. D.

OPERATION FOR REMOVAL OF CYSTICERCUS CELLULOSA.—(*By Prof. Dr. Ferdinand Von Arlt, of University of Vienna.*) The patient, a girl aged nineteen, was admitted to the hospital the second week in July. Four months previous she had first noticed certain disturbances of vision in right eye. There were sudden flashes and scintillations, and objects seen were distorted and indistinct. This condition grew worse until at the time of her admission sight was entirely lost. On examination no external causes were seen to account for the condition. On examination with ophthalmoscope the following conditions were discovered. The superior and outer part of the retina was bulged slightly forward, presenting a bluish-gray color. The retinal vessels at the apex of the projection appeared quite prominent, diminishing suddenly in size and becoming obscure at its base as if suddenly bent. The remaining portion of retina was apparently normal. A definite diagnosis was not made, and, although the case bore the prominent symptoms of detachment of retina, the cause of the detachment could not be referred to a proper source. The detached portion presented a smooth rounded surface unlike the folded or wrinkled condition characteristic of many cases of detachment of retina, and did not wave to and fro in the vitreous. From these facts and his experience with a somewhat similar case, Prof. Arlt concluded that the trouble was due to the presence of a cysticercus between the retina and choroid, and on July 22d operated in the following manner:

The lids were separated with two single speculums, and an assistant seized with a pair of forceps the conjunctiva and subjacent fascia at a point midway between the cornea and inner angle of eye to steady the eye, while at the same time a needle with ligature was passed through a fold of the conjunctiva at about a quarter of an inch from outer edge of the cornea. With this ligature traction was made, drawing the eye as far as possible inwards. Prof. Arlt then made an incision midway between the lines of the superior and external recti muscles at a point corresponding to the position of the cysticercus. The incision was downwards and outwards through the sclerotic and choroid. A few drops of a clear fluid escaped, followed by a cysticercus about three-eighths inch in length. The eye was at once returned to its normal position, cold water compresses applied and all light excluded. Five days after the operation the wound had healed, and all pain had subsided. Five days later on examination with ophthalmoscope the detached portion of retina had somewhat subsided, and at the time the patient left the hospital, fifteen days after the operation, no improvement in its condition could be seen. The vitreous had also become cloudy so that the fundus could with difficulty be seen. Externally the eye presented a normal appearance. In 1867 Prof. Arlt operated on a similar case, and with a most satisfactory result, the retina resuming its place, and sight being almost perfectly restored.

EXCISION OF THYROID GLAND.—This operation is so seldom performed that possibly a report of three cases operated upon by Prof. Billroth, of the University of Vienna, may be of interest to the readers of the LANCET.

The first case was that of a girl aged twenty, admitted to the hospital in June. About all the history of the case obtained was as follows: Five years previous she had first noticed a slight enlargement on the left side of the neck between the thyroid cartilage and sterno-cleido-mastoid muscle. It did not interfere with respiration or deglutition, and moved with the larynx. It continued to increase in size, but caused no serious disturbance until within the past six months, during which time dyspnœa and dysphagia accompanied by acute neuralgic pains became prominent symptoms. At the time of the operation the tumor occupied the entire space bounded laterally by the median line and a line drawn perpendicularly from angle of inferior maxillary bone, above by inferior maxillary and below by the clavicle. It projected so far forward as to destroy the natural conformity of the neck, the integument of the left side of the face and neck being continuous. The tumor was slightly movable in the lower part, and pulsations could be felt in every part. No enlargement of the right lobe then or had previously existed. The patient being anæsthetized, the neck and adjacent parts were thoroughly washed with antiseptic soap and water. The patient's head was elevated, the antiseptic spray directed on the parts, and Prof. Billroth made his first incision, extending from the angle of inferior maxillary in direction of sterno-cleido-mastoid, to the clavicle. He then proceeded to carefully dissect the tumor away from the adjacent parts. The normal anatomical relations were almost entirely destroyed, and each step was taken with the utmost care; clamps and ligatures to control and direct, recurrent hemorrhage accompanying each incision. Although the tumor was very vascular, there was comparatively little hemorrhage. The operation proceeded without accident beyond, as was afterwards discovered, the inclusion of the recurrent laryngeal nerve in a ligature applied to a divided branch of the superior thyroid artery.

The tumor was at last removed and the relations of the surrounding parts were seen to be very much disturbed, the muscles being atrophied, especially the sterno-cleido-mastoid, which consisted merely of a thin fibrous band. All hemorrhage was carefully controlled, the wound washed, and the parts brought as near as possible in opposition by silver sutures fastened by small lead clamps about the size of a penny. A small drainage tube was inserted and dressings applied. They consisted of a quantity of antiseptic gauze placed over the wound and covered by alternate layers of antiseptic gauze and cotton batting. The gauze was applied as a roller bandage, and was passed again and again around the neck, over the head and across the shoulders and as low down as the fourth or fifth rib, only leaving the face and arms free. At least two hundred feet of the gauze was applied (six inches wide), and when ready for bed the patient bore a striking resemblance to a newly prepared Egyptian mummy. The last layer of gauze was starched, and when dry held the patient as firmly as would a plaster cast. The patient was then placed in bed and an anodyne administered. Twenty-four hours later her pulse was 84, temperature 37.22° C. (99° F.) and no time following was it more than a degree above that register. Forty-eight hours after operation the dressing was removed. There was no suppuration, and the edges of wound had evidently united. The drainage tube was partly removed and the dressing again applied. Every twenty-four hours the dressing was changed and the innumerable rolls of gauze again applied. All this time the patient had experienced no severe pain, and rested well. The sutures were removed on the fifth day, and no bad result obtained beyond the suppurating of the lower inch and a half of the wound. The ligation of the recurrent laryngeal nerve did not result in complete aphonia, the patient being able to speak in a hoarse whisper, while coughing and laughing were phonetic. Her condition continued to improve until a month after the operation, when she was discharged from the hospital, the wound being entirely healed and her voice quite recovered, only a slight hoarseness being noticeable.

The second case was that of a woman thirty years of age Right lobe of thyroid was nearly as large and occupied the same relative position as the tumor in first case. The left lobe was slightly enlarged but not enough to be noticeable. The enlargement had existed for fourteen years, but had produced no disturbance in respiration or deglutition. The operation was performed as in the first case, the first incision however being about two inches shorter. The same dressing was applied and the same after treatment made use of. The recovery was fully as satisfactory as in the first case, the temperature at no time rising above 38.43° C. (101.17° F.) Three weeks after operation she was discharged from the hospital.

Third case patient about twenty-four. Here again the enlargement was on left side, and the tumor was about half the size of that in case No. 1. Operation as in first case with same treatment, but the result was not as satisfactory, the wound suppurating quite freely, and a considerable surface being left to heal by granulation, and the temperature rising to 39.44° C. (103° F.) on eighth day after operation. Discharged from hospital four weeks after operation. The antiseptic used was thymol 1 to 1,000, carbolic acid not being used as they claimed to have had bad results from its toxic effect. I was unable to obtain the weight and exact measurements of the tumors. The first and second cases were remarkable for the size of tumor, and all absence of pain, shock, and high temperature; the third from the fact that, in spite of the tumor being much smaller and the same precautions taken, suppuration and high temperature followed the operation.

Obstetrics.

Sex Determined by the Date of Conception.—Dr. Heitzman holds that a female child is produced by the union with the ovum of only a few spermatozoa, and a male by the union with it of many. If the ovum be high up, viz., on the ovary, or in the Fallopian tube, it is probable that only a few spermatozoa will reach it; if it be low down in neck or body of the uterus, many will unite with it. If we admit that ovulation and menstruation are dependent on each other, then the situation of the ovum may be determined by the menstrual period. During the interval between the periods, the ovum is in the ovary. Just before the flow begins, the ovum may be at the surface of the ovary, or in the fimbriated extremity of the Fallopian tube. As menstruation goes on, the ovum descends, and as the flow stops, it may be in the Fallopian tube, or even in the uterus itself. If impregnation take place in the interval between the two periods, or just before menstruation begins, the ovum being high up, only a few spermatozoa pass up the Fallopian tube and reach it; but if impregnation is just after menstruation, then the ovum is within the reach of many spermatozoa.

Dr. J. B. Swift (*Boston Med. Jour.*, Sept. 26), after recounting the foregoing theory of Heitzman, reports his experience in testing it in twenty cases, all of which support it. All cases in which there was any doubt concerning the exact date of impregnation were excluded. In twenty cases the data were obtained before delivery, and in all of these the sex was correctly predicted.

THE FORCEPS.—Prof. James P. White (*Buffalo Med. and Surg. Jour.*, June, 1878) read an article before the Buffalo Medical Association, on the obstetrical forceps, from which we condense the following:

Avicenna first mentioned the forceps in the eleventh century, only to be forgotten for the time, and not again to be introduced until the first half of the seventeenth century, by a member of the family of Chamberlens, who kept their appliances secret. In the first half of the eighteenth century, Chapman and Gifford introduced a straight instrument, after which the knowledge of the forceps became general.

Many modifications of this comparatively modern invention have been made, until we have the short forceps used in England; while on the Continent the long forceps, with a pelvic curve, are mostly used.

In America both forms are used (and *abused*—Ed.), accordingly as the practitioner has adopted a French or English text-book as his model and guide.

The value of the forceps depends upon their applicability. Prof. White prefers the long forceps with a pelvic curve, because they can be employed above the brim as well as at the inferior strait, while the short forceps can only be applied to the fetal head at the inferior strait.

The difference in the statistics is due very much to the different styles of forceps in France and Germany. While some practitioners use the forceps as often as once in every seven labors, and others who use them least often once in "250" labors, in England and Ireland only one case in six or seven hundred cases has until recently been thought fit for the application of the forceps.

The difference between Continental practice and that of the Kingdom of Great Britain and Ireland, may be indicated briefly by the following facts:

Dr. Siebold, of Berlin, uses the long forceps, and applies them in every seventh case of labor, but has performed *craniotomy* only once in 2,093 cases, while Dr. Collins, of Dublin, who uses the short forceps, employed it once in 617 labors, and resorted to the graver operation of *perforation* once in 141 cases, or 4½ times as often as he used the forceps. These men are the foremost in their respective countries; but the celebrated Irish accoucheur resorted to craniotomy more than 14 times as often as did the no less celebrated Continental practitioner, whilst the latter delivered 88 times as often with the forceps as did the former. Comment is unnecessary.

Prof. White uses a forceps of his own modification, which combines lightness with strength, and weighs only 13 ounces, while Hodge's forceps weighs 17½ ounces; Bedford's, 18½; and Elliott's, 19¼ ounces. Suer, of Paris, uses a forceps that weighs 23 ounces; and Siebold, of Berlin, an instrument that weighs 27 ounces.

[American practice in the use of the forceps conforms more nearly to that of the Continent of Europe.—Ed.]

FACE PRESENTATIONS.—R. A. F. Penrose, M. D. (*Hospital Gazette*, July 25th, 1878), says: "Face presentations are never to be trusted to nature." In those cases of face presentation in which the chin presents toward the sacrum the gravest conditions arise. It may be possible to rotate the chin to the pubes. If this occur, the labor will progress well, but if the chin rotate to the sacrum the case should be treated as one of impossible labor.

If seen before the head have escaped from the uterus version by the vertex may be resorted to, but version by the feet will be more probable. Version by the vertex would be the safest plan, if it can be performed.

If the head have passed the mouth of the uterus, version by vertex or feet cannot be done without great danger of laceration, and the attempt must be considered entirely unjustifiable.

If the fetal head have passed the mouth of the uterus, an attempt may be made to bring the chin to the pubes by the forceps, by the lever or by the finger in the mouth, but under no circumstances should the forceps be used to deliver the fetus in face presentations with the chin to the sacrum.

THE SECOND STAGE OF LABOR SHOULD BE SHORTENED.—Dr. G. Hamilton (*Obstetrical Journal*, June, 1878) has an article in this number in which he inculcates the doctrine that the second stage of labor should not be allowed to last usually much more, and occasionally much less, than two hours.

The doctor deduces this rule largely from the results of his own practice, in which he has attended, since his fourteenth year of practice, 1371 cases of labor at term, including all presentations, with only three deaths of the fetus.

The doctor is led to publish his success because the cases collected, both English and continental, show that whether there has been instrumental interference or not the results are about the same, or one death in about every four births.

In cases of tedious labor the doctor uses the forceps early, and in his last series of one hundred and sixty-seven cases, the forceps was used in thirty-one cases, or once in a fraction over five cases. The doctor is not in favor of chloroform, except occasion may require for a short time, because it violates his great law.

All in all, his results have made the doctor notorious, and his professional brethren are disposed to be jealous of him.

VOMITING OF PREGNANCY.—Francis Edward Image, M. A., M. B., Cantab. (*The Practitioner*, June, 1878), finds that oxalate of cerium, in the ordinary doses of one to two grains, is entirely nugatory, but in doses of ten grains his patients always find relief.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Honor to the Brave.

Can a more terrible situation be conceived than that of the people of the tainted southern cities? Death and disease stalking abroad; grief and desolation following in their wake; terror, selfishness, cupidity and crime darkening the air; husband forsaking wife and children in the endeavor to flee the scourge; the dead and dying pilfered and rumors of even more dreadful crimes perpetrated on the sick and helpless.

Is there a single bright ray for which we can look to lighten up this dark storm of death and sin? Yes, sweet human kindness is pouring its quieting oil of brotherly love on this turbid sea. The nation's great heart has been opened and generous gifts have been, and are pouring out, of everything that can comfort a bed of sickness, or lessen the anguish of a dying bed. Brave men of our profession have taken their lives in their hands and gone down into this dreadful sea, doing their best endeavor to stem its tide of death. Words cannot paint what they have seen and endured; gratitude can never repay the faithfulness and devotion with which they have sacrificed life

We would therefore respectfully say to our numerous friends who think we have too tamely submitted to these cowardly attacks, that the same policy regarding them, or any other personal matters which may come up, will still be pursued, and we are the more induced to this course since we have never had experience in mud-throwing, and are satisfied that in this accomplishment the very gentlemanly (?) managing editor referred to would beat us "all to pieces." H. A. C.

Memoranda.

Wm. R. Warner & Co.'s sugar coated pills are stated to have received the highest prize at the Paris exposition.

During a life of sixty years the human heart will beat about 2,470,612,000 times.

S. Herman Lebert, the author of the articles on relapsing and typhus fever and cholera, in Ziemssen's Cyclopedia, died suddenly in Switzerland.

Weyrich has shown that by the mechanical action of friction the excretion of water through the skin can be increased sixty per cent or more.

The British Medical Association, at its late meeting in Bath altered its by-laws so that no female practitioner can be elected a member of that association or of any of its branches.

The Chicago correspondent of the *Boston Medical Journal* says that the great Cook County Hospital so nearly new and so beautiful to look at is a reeking hot-bed of hospitalism. The three causes of this are given as complication in architecture, bad construction and political management.

The *London Sanitary Record* in an editorial upon sanitary work in Michigan remarks that Michigan requires a great deal of work from her State Board of Health for a very little money. With reference to the public health laws it says that it is self-evident that parsimony reigns supreme, and that the permissive element is fatal to uniform and thorough health administration.

The high price of quinine is said to be due to a diminution in the gathering of the Peruvian barks. The Indians, who are the principal gatherers, are engaged in wars.

Dr. Joseph Kirch (*British Medical Journal*, Sept. 7, 1878) states that during a practice of half a century he attended a patient in her twenty-first and twenty-second confinements, and afterwards attending her daughters and daughters-in-law, was the means of adding to the family ninety-seven grandchildren and eight great grandchildren.

Dr. Washington L. Atlee died September 6th, 1878, at his residence in Philadelphia; cause, cancer of the stomach. He was in his seventy-first year. Although active in a great variety of ways in advancing the general professional good, he is principally noted for his persistent and heroic advocacy of the operation of ovariotomy. Although he began his advocacy when the professional sentiment was almost universally opposed to it, he has lived to see the operation established as one of the most beneficent in the whole range of capital operations. A brilliant extempore speaker, an able debater and writer, he has filled an important part in the medical history of the last half century.

Mr. Spencer Wells in some lectures delivered before the Royal College of Physicians and Surgeons, recorded some mistakes and mishaps which he had experienced in his ovarian operations. Fibrous tumors and fibro-cystic tumors of the uterus, the spleen and other things, had been cut down on for ovarian tumors. A number of operations had been incomplete. Once a sponge was forgotten in a woman's abdomen. The next morning the patient became restless and feverish. Under pretense of altering the dressings, the wound was opened and the sponge found immediately under the wound, having been moved here by the action of the intestines. At another time a sponge was missing, and after great research was found between the liver and diaphragm. Once a pair of forceps was left folded up in the omentum. The wound was opened and the forceps removed. The patients did well.

Ragusa, of Dalmatia, an Austrian province, possessed the first foundling hospital in the civilized world.

The American Academy of Medicine held its third annual meeting Sept. 17th and 18th, at Easton, Pa. Forty-five candidates were admitted, and six rejected. The grounds of rejection was their lack of college education. We understand that these were men of medical reputation. It will be remembered that this society is composed exclusively of medical men, who also are graduates of literary colleges. It is hoped that in this way others may be stimulated to enter the profession only after a thorough training of the mental powers, or the acquiring of a considerable amount of general information. For ourselves, we believe that no one should be allowed to study medicine until he has taken the degree of Bachelor of Arts. True, it would shut off two-thirds of those who now study medicine. But this, in our judgment, would simply be a gain to all concerned, not excepting the students themselves. The next meeting of the Academy will be held in New York City.

Wm. Wood & Co. propose a new plan for the publication of medical books. The object is to reproduce standard medical works in good style at a price far below any medical books hitherto issued. The books will be issued monthly in octavo volumes of from 200 to 300 pages each, printed on handsome cream laid paper with broad faced long primer type. Wood engravings and plates will be used as required. Subscriptions are taken only by the year payable in advance. Among the volumes already selected are "Tait on the Diseases of Women," Ellis on "Diseases of Children," French on "Diseases of the Liver." It is hoped that in this way a sufficiently large number of subscriptions may be obtained to render the publication remunerative. Estimated according to their usual publication rates, the firm state that in this way fifty dollars worth of books will be obtained for twelve dollars. We doubt not that the plan will prove sufficiently successful to warrant its continuance during succeeding years. None of the volumes will be sold separately.

The American Gynecological Society held its third annual meeting at Philadelphia, Sept. 25th, 26th, 27th. Twenty-six members were present. Dr. Wm. Goodell, in the president's address, dwelt upon the great causes of uterine disease as demanding attention and treatment rather than the local effects upon the uterine organs. The essence of many of these disorders he showed lay in other organs than the generative. Dr. S. Weir Mitchell's methods of treatment were warmly commended. A large number of valuable papers were read and discussed. Next year the society meets at Baltimore. Dr. T. G. Thomas, of New York, was elected president for the ensuing year. Harmonious and thoughtful, this meeting still further advances this special branch, and adds to the reputation of the society.

A Philadelphia physician finds that the femora of subjects after dissection often present an inequality. Who shall say they are alike while the flesh covers the bones.

"The only wise policy for the State to pursue is to impart an education which applies to and benefits all alike."—*Educational Weekly.*

Professional or trade education by a Republican Government is illogical, unjust and suicidal.

"The great end of education is not information, but personal vigor and character. What makes the practical man is not the well-informed man, but the alert, disciplined, self-commanded man."—*Phil. Press.*

The above is emphatically true of medical education.

From a secular paper we learn that a physician in Springfield, Mass., gets paid for giving hygienic advice, and suggesting preventatives of disease. He has fifty patients to keep well, at $3.00 a year each. If he is required to visit them, half the usual fees are charged.

A new derivative of opium crystallizes in leaf-like masses, and is called meconoissin. Its therapeutic properties have not as yet been determined.

Drs. Ringer and Merrell by a re-investigation of the action of the potash salts, find that these paralyze all nitrogenous tissues, that they have an equal affinity for all protoplasm and that they destroy tissues in the order of their vital endowments.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

STRICTURE OF THE MALE URETHRA—ITS RADICAL CURE. By Fessenden N. Otis. Cloth; pp. 352. Price $3.50. New York: G. P. Putnam's Sons. 1878.

Readers of the medical journals during the past ten years can scarcely have failed to notice the contributions of Dr. Otis with reference to the treätment of stricture of the urethra. The volume before us is mainly composed of those papers, and a historical sketch of the methods by which the author reached his present conclusions. The results of two hundred and thirty-six cases are adduced as confirmatory of the author's special views. The points he claims to have established are:

1. That the urethra is an *individuality*, and hence, to obtain the true normal caliber of any urethra, it must be measured or estimated independently of any other.

2. The meatus urinarius is worthless as a guide to the normal urethral caliber, and its abnormal contraction is the cause of the pouch-like dilatation of the urethra behind it, known as the *fossa navicularis.*

3. Stricture is a relative term; hence its extent must always be estimated by comparison with the previously ascertained normal caliber of the urethra under consideration.

4. The slightest *abnormal* contraction of the urethra at any point constitutes a stricture.

5. A stricture in this sense is always a point of friction, the legitimate tendency of which is to produce inflammation; and hence the slightest appreciable stricture becomes worthy of

consideration. That serious trouble often results from strictures which but slightly contract the caliber of the urethra, and which do not markedly interfere with the passage of urine; and that among such troubles *spasmodic stricture* simulating true organic stricture in every respect, is often caused by such slight contractions.

6. Stricture is a cause, though not the only cause of gleet; and is, when present, always a cause of its persistence.

7. True strictures always embraces the entire circumference of the urethra at *some* point.

8. Complete division of stricture at *any* point results in the *immediate disappearance* of the stricture.

9. Separation of the sundered ends of the stricture suitably maintained until the healing of the wound, prevents the return of the stricture, and finally results in the complete absorption of the stricture tissue.

10. Stricture is, strictly speaking, an inflammatory product, and any acute or chronic inflammation may produce it.

11. Stricture is often present as a result of inflammation, caused by *lithiasis*, *masturbation* or *urethral laceration*, though usually the sequel of a gonorrhea.

12. Stricture occurs most frequently in the anterior portion of the canal, and with increasing frequency when approaching the meatus, where a gonorrheal inflammation begins the earliest, rages the hottest and lasts the longest.

A considerable number in the profession have in the main accepted these views. All desirous of ascertaining the evidence by which they are supported, will gladly welcome this book. If ultimately established by professional experience, these views will represent the greatest advance in the treatment of urethral stricture.

GRAY'S DESCRIPTIVE AND SURGICAL ANATOMY. A New American from the eighth English edition. Pages 982. Philadelphia: Henry C. Lea. 1878.

The repeated editions of this work attest its continued popularity and substantial excellence. We had hoped that this fact would have induced the publishers to replace the older plates. So frequently have they been used, that in many instances they have become quite imperfect. As these plates constitute the main claim of the work to its present position, it seemed not unnatural that its publishers would look out that they were replaced as the plates became worn.

The additions made have been mainly in the department of microscopical anatomy. The illustrations here are taken from well-known standard works, and are in the main judicious and instructive. At the end of the volume proper is appended Mr. Luther Holden's little work on "Medical and Surgical Landmarks." This part of the volume should be thoroughly mastered so as to be reproduced under any circumstances. On the whole, it is a magnificent volume, especially adapted to the needs of medical students. Its style of issue is of the same liberal description as in former editions.

A MANUAL OF OPERATIVE SURGERY. By Dr. Lewis A. Stimson. With three hundred and thirty-two illustrations. Cloth; pp. 475. Philadelphia: Henry C. Lea. 1878.

If such a book be desirable at all, the author has done a good work. The details of the descriptions are as complete as could be expected, and are given with more than ordinary good sense. Necessarily it is simply a compilation from the writings of various surgeons. Possibly it may have a place to fill, but it occurs to us that one who desires to operate will need to study the indications for an operation, the treatment before and after, etc. However, if all that is wanted is a clear, plain description of the operation, Dr. Stimson has in this volume met the want.

FOWNE'S MANUAL OF CHEMISTRY. Revised by Henry Watts, B. A., F. R. S. New American, from the twelfth English edition; with one hundred and seventy-seven illustrations. Cloth; pp. 1,027. Philadelphia: Henry C. Lea. 1878.

The type of this edition is so small, and the lines so long and close to one another, as to be very fatiguing to the eye. The revision made by Mr. Watts is especially complete in that part devoted to organic chemistry. The old and new systems of weights, etc., are placed side by side as to familiarize the student with the coming system. All relating to physiological chemistry has been omitted, as these topics are best studied in other works. Clearness and accuracy of statement are even more than before characteristics of the text. The organic chemistry will make the heart of many students quake. The following names are taken at random: Palladiosemidiammonium chloride, tetrachlorodibromethane, dehydrotriacetonamine, methylparaoxybenzaldehyde. These terms are very scientific and very expressive, but to the beginner they are as lions by the wayside. Mr. Watts has admirably simplified this portion of chemistry, and for this deserves our gratitude. The advances in modern chemistry are in no sense appreciated by the bulk of the medical profession. A thorough study of this book during leisure hours, would serve to wonderfully open their eyes to the new world that has been opened up about them. Certainly, as it stands to-day, this is the very best book for the average medical student.

FIFTH ANNUAL REPORT OF THE SECRETARY OF THE MICHIGAN STATE BOARD OF HEALTH, FOR THE YEAR ENDING SEPTEMBER 30, 1877. Cloth; pp. 503. Lansing, Mich. 1878.

This volume opens with a general statement by the secretary of the work done in his office and by the board through the year. Dr. H. O. Hitchcock gives a study of heredity as found in the books and a partial report of the proceedings of the American Public Health Association. In the former he calls especial attention to the duties of legislatures—educators of all sorts and the State Board of Health, in reducing to a minimum the evils received by each generation from the preceding one. Syphilis, scrofula, phthisis, insanity, etc., by proper methods may be largely reduced, if not altogether abrogated. There is no subject more important in its bearings upon the prosperity of individuals or States. Prof. R. C. Kedzie, in a paper on "Labeling Medicines," emphasizes the point that no medicine ever should be used that is not distinctly labeled as to its name and dose. In this plan only does he see a method for avoiding all accidents, and in our judgment he is correct. If medicines of power are to be administered at all, let their nature and doses be first definitely ascertained. Above all let no person keep about his premises any unlabeled medicines. We have also from the same pen the able address on "Illuminating Oils in Michigan," delivered before our last legislature. Many petitions, originating probably at the hands of interested parties, had been sent to this legislature asking it to lower the Michigan test so as to permit the sale of oils whose flashing point was far lower. In his characteristic lucid manner, Dr. Kedzie showed that the law had, in so far as it had been strictly observed, absolutely protected the people from injury and death by kerosene lamp explosions, etc., that to lower the test would be to repeat the experiences met with before the passage of the law, that the petitions were wholly in the interests of the pockets of the oil manufacturers. He showed how the adulteration of the oil by paraffine and lighter oils might be detected. In conclusion, he suggested the following changes, which were substantially adopted: (1) Abolish the fire test that retains our present flash test of 140°. (2) Reject all oils which contain much paraffine, for example all oils that do not remain clear and transparent when cooled down to 20° Fahr. for ten minutes. (3) Make it a misdemeanor for any person to use uninspected oil. (4) Make it a misdemeanor for any dealer to sell empty kerosene barrels or casks before canceling the inspection brand. (5) Make the dealer responsible for the acts of his clerks and employés in selling illuminating oil. (6) Make it the duty of the governor to remove from office any State inspector who is unfaithful in the discharge of the duties of his office, and to appoint a competent person in his place. The bill was so amended as to permit of the use of naphtha in street lamps. Dr. Kedzie also has a paper in which he brings forth facts to emphasize the necessity of persistence in efforts to resuscitate the drowned—"*Do not give up too soon;* any time within two hours you may be on the very threshold of success without there being any sign of it." Part of the paper is devoted to a recital of the best methods of avoiding drowning when in the water. To float, the legs should be straightened out, the head thrown back and the arms held behind the body; the face will then float above the water so long as this position is maintained. But a person may readily do more than this, viz.: keep the entire head out of the water by making the same movements with both arms and legs that he would in climbing a vertical ladder. The fact that relatively few persons can swim renders this article of more than average practical importance. An elaborate paper upon "Recreations and Health," by the Rev. Chas. Brigham, is a characteristic, scholarly production. Dr. H. F. Lyster contributes papers on "Healthful Dwellings," "Small-pox in the City of Detroit," "Baths and Bathing." The first briefly states the essential facts pertaining to the *location* of healthy dwellings—*dry*, *clean*, *snug* and *airy*—conditions that he shows by quotations and the replies of his correspondents are but seldom met in combination. The second article is a capital argument from fact of the efficiency of vaccination. The article on baths and bathing briefly describes the different forms of baths, and by the replies of correspondents shows that bathing is quite generally neglected as a means of health. "Remarks on Infant Diet," by Dr. Arthur Hazlewood are judicious and timely. "Diseases in Michigan during 1876" is a paper characteristic of the secretary; so also is that on the compilation of the weekly reports of prevailing diseases. These and their corollaries cover two hundred and seventy-eight pages. We have not space to enter upon even a most cursory study of the work here presented. In so far as we are aware, no other State board has so fully carried out this method of vital study. The interest to both the people and the profession is great, and as coming years increase the data, deduction will be more and more valuable. In general, we can say that we are singularly pleased with the tangible evidence of the vitality of our own State Board and especially with the faithful and efficient labors of its secretary. Surely the State of Michigan gets a vast return for its expenditure of $4,000.

A Clinical History of the Medical and Surgical Diseases of Women. By Robert Barnes, M. D. Second American, from the second London edition. Pages 780. Philadelphia: Henry P. Lea. 1878.

Unlike many new editions, this one has been very thoroughly revised. The elimination of redundencies and the re-arrangement has enabled the author, without increasing the number of pages, to add a new chapter on the " Relations of Bladder and Bowel Disorders to Diseases of Women Proper." To those familiar with the author's writings, we have only to say, that we regard this one of the happiest efforts of his life. The plan and its execution are such as to place in a most perspicuous light all the demonstrated facts of modern gynecology. Yet we find none of the disjointed writing so common in compiled books. The author has thoroughly digested his materials, and presented them as an organic whole. Great emphasis is laid upon the applied anatomy and physiology of the organs affected. A specialist in the best sense of that much abused term, the author practically illustrates, and everywhere enforces the great clinical rule: " Interrogate all the functions, examine every organ. In this way only can we acquire a well-founded confidence that important disease is not overlooked; in this way only can we rightly estimate the relations of symptoms to disease and the reactions of disease upon distant organs, and frame a rational plan of treatment." Of the many books on this topic, very many master works, we can confidently affirm that he who buys this one will have no occasion to regret his choice.

The Antagonism of Therapeutic Agents. By Dr. J. Milner Fothergill. The Fothergillian prize essay for 1878. Cloth; pp. 160. Philadelphia: Henry C. Lee. 1878.

This work aims to give a bird's eye view of the antagonism of theraputic agents as now understood. It treats first of the experimental evidence, and second, of the practical bearing of this evidence upon the physician's and surgeon's art. The experiments are selected with great care—everything not absolutely necessary being omitted. Frasier by experiment showed that Calabar bean lowered the pulse rate, respiration and the activity of the spinal motor centers. Atropine stimulates the activity of the pulse, respiration and spinal motor centers. Hence it was proved that atropine is the antidote for poisoning by Calabar bean. These facts respecting the action of Calabar bean have been utilized notably by Dr. Crichton Browne in the treatment of the general paralysis of the insane. Thus he was able to control their fits of excessive excitement by the lowering of the action of heart, lungs and spinal motor centers with atropine. He found that the progress of the disease was retarded, and in some arrested for a time. The reason that Calabar bean has not been more extensively used for this purpose is that chloral has a similar action and is more easily handled. Another practical fact deduced from this study is that both Calabar bean and chloral are improper drugs to use where the respiration and circulation are involved, as they tend to increase the probability of failure in their systems, and so to cause death. But when there is vascular excitement and corresponding respiratory activity, chloral or Calabar bean may often be used to advantage. Thus, if there be insomnia with vascular excitement, chloral is the hypnotic *par excellence.* By its double action upon the motor cells and the circulation, it produces a sleep almost identical with natural sleep. As chloral dilates cutaneous blood vessels it increases the mass of blood in the external or heat losing area of the body, and reduces the temperature. As chloral tends to produce death by stopping the respiration and heart beats, it is clear that it should not be given, for instance in cases of chronic bronchitis with emphysema, in cases of valvular disease of the heart, etc. It is quite as important to learn when not to use a potent drug as when to use it. A case in point is given in which a patient with emphysema and aortic stenosis was admitted to a London hospital. In spite of rest, digitalis and ammonia, he was liable to attacks of dyspnœa since his entrance into the hospital. It was finally ascertained that the house physician, in order to allay the sleeplessness complained of, had prescribed chloral. The chloral was stopped and the attacks of dyspnœa never returned. As strychnia stimulates the respiration, circulation and motor centers, it is an efficient antidote in cases of chloral poisoning.

Belladonna is shown to raise the blood pressure of the arteries, partly by contracting the peripheral artereoles and partly by its direct action on the heart. Thus it proves useful in poisoning by Calabar bean, aconite and other depressent poisons. In cases of melancholic dementia with cerebral anæmia and atony of the circulation, belladonna acts remedially by its influence in promoting a proper circulation of blood through the brain. When it is necessary to give huge doses of morphia or opium, its combination with belladonna will obviate its evil effects upon the circulation and respiration. We have not space to further allude to the several antagonisms of remedies here developed, or the relations to practical medicine of the facts thus developed. We see more hope to the future therapeutics from this class of studies than from all other sources combined. Here we have some facts that can be depended upon under all circumstances. The work is worthy of the most careful study by every practitioner or student of medicine. The clear and interesting manner in which the subject is presented adds not a little to the pleasure of the study. It is one of the few genuine good books.

NERVOUS DISEASES—THEIR DESCRIPTION AND TREATMENT. By Allan McLane Hamilton, M. D. With fifty-three illustrations. Cloth; pp. 512. Philadelphia: Henry C. Lea. 1878.

In his preface, the author tells us that his aim has been to produce a concise practical book. As we regarded such a book a desideratum, we examined this with considerable care. In the introduction the author wisely states that "it is well to start with systematic rules for investigation, and it is of paramount importance that we should pursue some plan which will enable us to avoid confusion, and assist us in making an accurate diagnosis by exclusion. One of the greatest misfortunes that can happen to a student is the possession of a large accumulation of badly arranged facts which are stored away in the brain, like odds and ends in a garret. I therefore propose a scheme to be used in the examination of patients."

We hazard nothing in saying that this scheme is even worse arranged than "odds and ends in a garret." It embraces ten separate, but equally important headings, viz.: Examination of Patient, Symptomatology, Tremor, Inco-ordination, Vertigo, Sensation, Disorders of Organs of Special Sense, Psychical Disorder, Miscellaneous, Exciting Cause, Diagnosis and Treatment.

To our mind, "Examination of the Patient" necessarily includes all the rest, but our "concise, practical author" limits it to age, sex, temperament, appearance, duration of present disease, existence of complicating maladies, previous history, hereditary predisposition and habits. Again, are not tremor, inco-ordination, vertigo and sensation, symptoms, yet our systematic author gives them a distinct heading equal to symptomatology.

A worse attempt at a scheme for examination of a patient, it has never been our lot to read. Surely the student who attempted to follow it would find it an "illusion." A master in the art of diagnosis might get a suggestion from certain branches of the scheme; but he would not need it, and it was not for such that Dr. Hamilton tells us he prepared it.

For the rest of the work we must say that it savors strongly of Hammond's book. In no instance does it rise above that standard; generally, it is below it, as all imitations are apt to be; quotations, even to the mistakes, are often identical. We cannot see that the author has in any sense made the diagnosis of cerebral diseases any easier, nor has he produced a concise, practical book. In his preface he tells us that he deemed it advisable to include a short article upon cerebro-spinal meningitis.

The article is just three pages long. The publishers have performed their task with their usual good taste. But, in spite of all, we must say that it is just the book on nervous diseases that medical students should let alone.

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Original Communications.

The Germ Theory of the Etiology of Tumors.

BY THEODORE A. M'GRAW, M. D.

In no other department of medicine have the cellular theories of Virchow been so rich in practical results as in the pathology of tumors. Previous to his time there had reigned the greatest confusion over this subject. The labors of Johannes Mueller and others of his school had, useful and meritorious as they were, yielded only negative results, whose principal value consisted in showing that the truth lay in other directions. Virchow first brought order out of chaos, and indicated the methods to be used in future research. By establishing the doctrine of the local origin of all dyscrasiæ, he inspired the profession with hope that even malignant tumors might yield to treatment, when better understood. This humane hope, as well as the innate attractions of a novel pathology, stimulated many ardent observers to the careful study of the histo-genesis of tumors. The impulse thus given, although not yet all expended, has already yielded rich fruits of actual knowledge, and has shown to the profession many possibilities which twenty years ago had never been thought of. In calling your attention to some of the more recent doctrines which have resulted from these investigations, I shall not attempt to present all of the numerous phases of opinion which are to be found in such diversity and abundance in medical literature, still less to observe any chronological order in the enumeration of those which I shall discuss. I make no apology, therefore, for beginning with one of the newest theories, by which it is sought to account for the occurrence of tumors, viz.: the germ theory of Thiersch and Waldeyer. The advocates of this doctrine, it must be premised, limit the term tumor to a very small class of abnormal enlargements. They exclude from the class all those enlargements which arise from infectious diseases like syphilis, tubercle or glanders, all which are true hypertrophies, all which are the result of malarial or other poisons, like the enlarged spleen—all products of inflammation, irritation, or hemorrhage, and all those which, like atheromatous cysts, are the results of retention of natural secretions. This leaves only those tumors in which tissue is formed without apparent cause, and without conforming to the type of the adjacent structures. Homologous as well as heterologous growths are, I may say, considered to be in a measure atypical and disorderly—inasmuch as even a fatty tumor does not grow according to the laws which elsewhere regulate the growth of fatty tissues. It is only to the neoplasms proper, then, that the germ theory of which I am about to speak applies.

The origin of this theory is not far to seek. No class of disorders are so peculiar in some respects as tumors. Pathologists learn to account for other maladies in disturbance of functions or in defects congenital or acquired, of structure. Physiological laws are not abolished in these processes, though disturbed by external or internal causes. With tumors, however, the case has hitherto seemed different, and we have found ourselves confronted with maladies which seemed to defy all physiological laws. So marked is this feature of morbid growths that even now it is difficult to divest ourselves of the ancient idea that they are, like parasites, something foreign to the body. In all cases, they seem to have a life independent, except for their blood supply, of the rest of the organism. They develop often when the power of development is otherwise gone from the body, they grow after growth elsewhere has ceased, they persist when starvation or sickness reduces the individual to a skeleton, and in many cases they attack and destroy the other structures of the body. Tumors, therefore, have ever presented phenomena which surgeons have found difficult to reconcile with the ordinary laws which govern the development, growth and nutrition of the human body. The germ theory is an attempt to explain these peculiarities and to bring them into conformity with law. To such as have not studied it in detail, I would warmly recommend the "Allgemeine Pathologie" of Cohnheim, of which the first volume alone was published by August Hirschwald, of Berlin, in 1877. No student of pathology can read his masterly presentation of the germ theory without being moved to admiration. It is the work, however, of an advocate rather than of a judge, and his conclusions must be, therefore, accepted with some reserve. I have time to-day to give but a meager outline of a doctrine whose influence in molding the pathology of the day can not be questioned. The main idea advanced is that tumors must be classified according to their etiology, and that in order to explain their occurrence at all, we must go back to embryonic, or, at all events, fetal life. All tissues are evolved from germs which are differentiated in the egg or in the embryon. They reach, after a certain period, their maximum development and growth, and after that become incapable of reaching a higher structure or a greater size. Tumors therefore, which start often after this period has passed, and grow to a magnitude of which normal tissues are incapable, can only be accounted for on the assumption that in those particular spots whence they sprang, there must have existed undeveloped germs which had survived in a latent state during the continuous changes which had been undergone by the rest of the organism. The hypothesis of undeveloped germs is warranted by many facts both of physiology and pathology. The testes and ovaries remain latent until puberty; the hair follicles on the lips of many women until after the climacteric period. The extraordinary growth of the muscular fibers of the uterus is referred by Cohnheim to the stimulus given by pregnancy to germs before quiescent, and the frequent occurrence of so-called fibroid tumors in both the wombs of sterile women and in their analogies in men—the prostate glands—to the abnormal development of the same germs, when their growth would answer no physiological purpose. The occasional occurrence of extra fingers and toes proves the existence of more germinal matter in those individuals than is needed for the normal organism, and the hypertrophy which whole limbs may undergo in some persons bears witness to the same fact. Ollier has found by experiment that the production of an afflux of blood towards the epiphysis of a long bone, provided the cartilage and the bony surface to which it is attached are uninjured, will cause it to grow longer than its fellow, while Virchow has noticed cartilaginous islands in the shafts of adult bones. While both of these facts would seem to point to a superfluity of germinal matter in bones, the former would indicate that this superfluity exists as a normal condition. Pathologists have long been accustomed to attribute certain kinds of tumors to abnormalities of fetal life. The dermoid cysts are examples of tumors which can be explained in no other way. These cysts, as Lücke has pointed out, occur only in certain well defined localities, and these places are invariably spots where there have been in the embryo infoldings of the germinal layer in the process of development. The fontanelles, the orbits, median line of the neck, mediastinum, ovaries and testes are the well-known seats of dermoid cysts. Indeed, they rarely occur anywhere else. Lücke explains their existence on the hypothesis that in the process of development certain irregularities occurred by which germs of one layer became included in tissues belonging to another. Such inclusion could take place only at the line of junction of the blasto-dermic folds, or in those organs like the Wolffian bodies, which lie in immediate contact with the different layers. The same principle applied to the different organs in the process of development explains the adenoma of the axilla as the development of germs cut off from the mammary gland, enchondroma of the parotid of those properly belonging to the ear; enchondroma and osteoma of the lung of those from the ribs. All primary heterologous tumors may be supposed to be caused by the development of such aberrant germs. The advocates of this germ theory of Thiersch conceive of surplus germs, either, 1st, as generally distributed over the normal body, in accordance with that lavishness with which nature often acts in order to secure a certain purpose, just as millions of eggs are laid to produce a few thousand individuals — the ability of the physiologist to increase the growth of a bone by stimulating the epiphysis would seem to demonstrate this as a physiological principle; or, second, to scatter the surplus material over a tissue system — an hypothesis which would account for the multiple lipomata, enchondromata, exostoses, etc.; or, thirdly, to deposit them in a given locality, where the growth of a single tumor might afterwards show their presence. In any case, such germs remaining latent until their normal period for development had passed by, could, if stimulated by any cause, to activity, grow only into disorderly masses, which could sustain no proper physiological relations toward the rest of the body. They might grow, however, with all the energy and luxuriance of embryonic tissue. The character of the growth might be supposed to vary according to the stage of development which they had reached before becoming quiescent. If put aside early in the life of the embryon, they would probably take up their development where it had previously ceased and grow into immense masses of cells and juices such as we see in the sarcomata. If reserved from a later period they might be of histoid character. In all cases they would always and invariably be of the same type as the blastodermic layer from which they were generated; if from the outer or inner layers, of epithelial type; if from the middle layer, after the fashion of the tissue which springs from that layer. In no case could a growth ever change its type, although it is by no means impossible that two kinds of tissue might be generated from germs of different layers and grow side by side into one tumor. It is curious to note what different interpretations the same series of facts may permit of, when viewed from different stand-points. Virchow called the attention of the profession to the frequency with which cancers occurred at the orifices of mucous canals, as on the lower lip, cardiac and pyloric ends of the stomach, arms, etc., and explained it by their greater liability to injury than other parts of the body. Cohnheim urges an hypothesis founded on the germ theory as the more probable, for he remarks that every such locality has been the seat in embryonic life of some complication in development. On this account, abnormalities might be expected, such as the deposit or aberration of surplus germinal matter. All that Cohnheim will concede to the theory of the influence of injuries in producing tumors is that they may act as exciting causes, by stimulating the germs to activity. In acknowledging this, he further concedes that germs may fail to develop for the lack of the necessary stimulus, or because of the resistance of surrounding structures. Of this opposing influence of normal tissues in preventing or limiting the growth of tumors, I shall presently speak, when upon the subject of Thiersch's doctrine in relation to malignancy.

The germ theory has undoubtedly many plausible and attractive features. For the explanation of the occurrence of dermoid cysts, primary heterologous tumors, and the fibro-myomata of the uterus, it would seem of all theories the most probable. As a general basis for the pathology of all new tumors, however, it is much more open to criticism; for while we may readily concede to it a partial applicability, we cannot avoid recognizing that a large number of facts exist which can be made to conform to it with great difficulty, if asserted as a general law.

If we assent to it as such, and then ask ourselves, in what organs we ought to expect the most frequent occurrence of tumors, we would have to answer in such as, from any cause, would retain the most latent germs. Organs, therefore, which are rudimentary and undeveloped, ought to be the frequent seats of such maladies. The male breast and the hair follicles on the faces of women are such organs. Can we say that they are frequently the seat of tumors or cancers? Do we not know that precisely the reverse is true, and that such diseases in those organs always excite remark on account of their rarity? It cannot be said that the germs do not exist in these structures, for men have suckled infants, and women have raised beards. Indeed, it was gravely stated, a few months ago, in one of our medical journals, that a physician in Germany undertook to furnish wet nurses at will from either sex, by subjecting the glands to certain kinds of stimulus. Now, if the theory is true, is it not wonderful that these multitudes of latent germs, existing in all individuals of the one or other sex, should almost uniformly escape that abnormal development which produces neoplasms? Again, the lips of men and women are developed in precisely the same manner, does it speak for or against the theory that women so rarely have those cancers of the lower lip, which are so exceedingly common with men? It may not be out of place to recall here the statements which have been frequently made, that savage races are exempt from tumors and cancers. I do not know whether or no this may be accepted as a settled fact. I inquired particularly about the prevalence of these diseases among the Sioux, Bannocks, and other Indian tribes with whom Gen. Custer came in conflict at the time of his death, of Dr. McGillycuddy, who, for three years past has been acting as assistant-surgeon to a regiment of U. S. cavalry stationed in that region. The doctor has come in contact with many thousand Indians, and last year was in medical charge of one of the largest Indian agencies. In an extensive practice among them, in which he had occasion to treat them for almost everything else, he had met with but one tumor of any kind, and that was an atheromatous cyst on the neck of a squaw. Accurate knowledge upon the relative prevalence of tumors among savage races would be a very important factor in the problems which relate to their etiology. Should it prove to be true that they enjoy an immunity from such maladies, the fact would militate, it seems to me, very strongly against the germ theory. For we can readily understand why tribes living constantly in the open air should escape many degenerations to which civilized man becomes subject through his peculiar habits and circumstances. If we continued, therefore, to regard new growths as disorders due to degenerative changes and peculiar irritations, we might attribute the immunity of savages to their freedom from the causal conditions. If, however, we accept the doctrine of surplus germs, how can we explain the fact that the wilder races of men develop so much more perfectly than those who have been civilized? Why should the cultivated man come into the world loaded with superfluous and dangerous germinal matter, when the savage has just enough and no more than is sufficient for normal development? Civilized men do indeed, as a rule, live better than savages, and, as nations, are better nourished; but those who are at the bottom of the social scale, and suffer privations to which those of the Indian are insignificant, do not, nevertheless, thereby obviate the development of tumors or cancers, either in themselves or their progeny. In fact, some kinds of cancer, like that of the lip and scrotum, are almost peculiar to the poorer classes of men. The soot cancer has often been adduced as an instance of the influence of irritations in producing malignant disease. This disease occurs, I believe, only in England, and there only in the persons of chimney sweeps. Its usual seat is the scrotum. Now, are we to assume that Englishmen alone have surplus germs in the scrotum, or that sweeps alone of all Englishmen are favored in this respect; or is it more probable that the peculiar nature of an English chimney-sweep's habits, and something irritating in the soot made by English coal, have together produced local irritations which have culminated in cancer? Again, dwarfs and other men of stunted growth might reasonably be supposed to contain a greater amount of latent germinal matter than men of normal size, or giants. Is it a fact that such people are unusually prone to the formation of tumors?

It is a part of this doctrine that epithelial germs alone produce epithelial cells and connective tissue cells or germs alone produce connective tissue, and so with all tissues. And yet there are many competent observers who have reported cases of connective tissue tumors which have become cancerous and which have exhibited in their minute structure a gradual transition from the cellular forms proper to the original tumor to those of cancer. As an example of such reports, I will refer to one of the latest which I have seen, namely, that of Prof. Maier, of Freiburg, published in Virchow's Archives, of July, 1877. Maier in his paper gives four cases of this kind, in which an osteo-chondroma of the thyroid, an enchondroma of the kidney, an enchondroma of the subcutaneous connective tissue and a sarcoma of the tibia, all became cancerous, with the exhibition of these transitional cellular forms. Now, it is easy to say that such observations have been inaccurately reported or incorrectly interpreted, and yet they cannot but throw doubt on the truth of the doctrine.

Another weak point in the doctrine is that which refers the explanation of the frequent occurrence of cancers at the orifices of mucous canals to complications which had taken place in development, for when, in following this clue, one begins to study other points of the body in which similar complications have taken place in the embryon, we are disappointed in finding that those places are not predisposed to cancer. For instance, the dorsal or vertebral plates close together behind and include the neural canal—are cancers common in the median line of the back? The visceral plates close over the abdominal cavity and unite in the median line of the abdomen. Are cancers or even dermoid cysts common in that region? Cohnheim asks why, if injuries cause cancers, they are so rare in the vulva? We might retort his question upon him and ask why, if cancers occur on account of the deposit of germs in spots where complications of development have taken place, they do not occur in the vulva where the mucous membrane connects with the skin? We might ask, however, with even more emphasis, where does development take place that it is not a complicated procedure? when the cells become differentiated which afterward develop into a leg or arm, why should not a surplus be generated over the needs of the member just as well as in a spot where the germinal layers had been folded in or grown together? One thing more before leaving this subject: How can we account on the germ theory, or, for that matter, on any other, for the immense growth of certain tumors? There is no reason to suppose that germinal matter which had remained latent would have greater power of multiplication than that which had passed into normal tissue. If we suppose, therefore, that a little mass of germs from the middle layer had been deposited in a certain spot under the integument of the back, in order to develop into a fatty tumor, we would still have no reason to believe that they would multiply until they would outweigh all the adipose tissue, which had normally been developed from the appropriate germs which had been scattered all over the rest of the body. And yet we all know the huge abnormal masses into which these tumors sometimes grow. A fibroid of the uterus will sometimes grow into a larger mass than would suffice to make up an increase of uterine tissue sufficient for twenty pregnancies. Can we, then, suppose that they are the results simply of the mal-development of germs which ought otherwise to have been disposed of in a few pregnancies?

The germ theory would seem, then, to me, to be partially true, or at least to afford the most plausible explanation of the occurrence of the dermoid cysts and many other heterologous tumors. There are, however, many serious objections to its general application to all morbid growths.

Holding fast to the germ theory, Thiersch has found it necessary to invent another in explanation of the malignancy of certain tumors. It is evident that structures developed irregularly and from latent germs, would not necessarily, on that account, acquire the power of invading other tissues and destroying them. In normal relations the tissues invariably respect each other's limits. A hypertrophied heart or other organ may, indeed, push other structures aside, but it never grows into or through them. This is said to be the case even in the formation of organs in the embryon; the various layers form them in common, and never encroach upon each other's boundaries. When, therefore, malignant action is developed in a tumor, we witness phenomena which have no physiological parallels. Thiersch explains it on the hypothesis that the various tissues act towards each other as checks and obstacles to undue growth, not that they interpose a physical barrier, but a physiological force. In other words, every tissue is supposed to have inherent in itself a certain power by which it is able to resist, to a certain extent, the encroachments of all other structures. Thus the epidermis maintains always a certain definite relation with the corium, which does not vary in the least in all the fluctuations of growth. If the subcutaneous layers become thickened by inflammatory deposits, nature strives continually to cause absorption and restore the balance. Should it not succeed in doing so, then the persistent induration remains as a disturbing element, threatening danger. Even innocent tumors like lipomata have a certain amount of this physiological resistance to overcome before they can grow at all. The theory might, however, be put more correctly if I said that the growth of any tumor was impossible as long as the surrounding tissues maintained their physiological integrity. When, however, the power of resistance is diminished to a minimum by the atrophy or degeneration of a tissue, then the accidental development of any chance germ may lead to fatal results, because it is then permitted to grow in wild luxuriance, without any restraint, and to invade and destroy the whole body. That which makes cancer a disease of old age is the atrophy of connective tissue in old people. This it is, too, which predisposes to cancer, for persons whose connective tissues are thin and feeble become liable to it whenever any accidental cause stimulates the epithelium to abnormal growth. The chief difference between an innocent and a malignant tumor of epithelial character, lies in the differences in the resisting powers of the tissues in which they are located. Cohnheim makes this also a general law controlling the growth of tumors.

I shall not discuss this theory at length, but can by no means accept it in the absoluteness with which it is laid down. In the first place, that which limits the growth of a tissue can not be asserted to be solely or even chiefly the resistance of its neighbors. It happens frequently in surgery that men are stripped so widely of their integument that the scar is never able to form over the denuded surface. Now, in such a case, to talk of the resisting power of a tissue which is utterly destroyed, is in itself an absurdity; and yet in those cases we never see muscles or fascia growing out in the aperture like a cancer. Even granulations become limited, and the limiting force must be located either in the tissue which is growing, or in those which supply its nervous force or blood. Any other hypothesis under such circumstances is impossible. This is true also of children whose tissues contain, of necessity, many developing germs. The only examples of a tissue formed by a growth projected outwards through such defects of the integument are given in the prominent scars which form sometimes when granulations are too exuberant and in *bona fide* tumors. The only examples of a growth inwards, that I know of, are those cases in which an epithelial cancer grows through an old sinus into the bone. But does malignancy, after all, consist in the actual invasion of other tissues, or in some aggressive power which we recognize in certain morbid structures as an impending danger? There are certain encephaloid growths which are encapsuled. Now, if we cut down upon these and remove them before they have penetrated their capsule, we may secure an immunity for our patient for years. Now, do we look upon such a tumor as any the less malignant because the other tissues have as yet resisted its growth, or do we not justly feel that in the very character of the growth itself, in its juiciness and rapid cellular prolification, there lies an aggressive force which cannot too speedily be got rid of? There may, nevertheless, be a certain truth in this theory of physiological resistance and pathological loss of resisting power, and yet I do not believe that any surgeon can study the growth of cancer without coming to the old conclusion that the malignancy is part and parcel of the tumor. It may be modified, but not destroyed, by the condition of the neighboring structures.

Notwithstanding the novelty and attractiveness of these doctrines, I cannot think that they bear criticism as well as the older theories of Virchow. Their practical results have thus far been manifested in new classifications of tumors founded on their supposed etiology. On the theory that the tissues derived from the different blasto-dermic layers keep separate during life, this school of pathologists insist upon the impossibility of a connective tissue matrix giving origin to epithelial cells, and *vice versa*. They reserve the name cancer for epithelial new formations of malignant tendencies, and assert that it never grows in bones, muscles, or connective tissues or tumors of that type, excepting by means of aberrant germs. The greater number of encephaloid growths are, properly speaking, sarcomata. We may note, therefore, this curious consequence of this doctrine, that cancers no longer occupy the summit in the scale of malignancy, but must accept the second place, the round-celled sarcoma being, of all the growths, the most quickly fatal. As primary heterologous tumors are all explained on the ground of aberrant germs, they lose their significance as regards any tendency to malignancy, but as they usually occur in certain definite places, the study of the tumors to which the different localities of the body are especially liable, will throw great light on their diagnosis. Indeed, one enthusiastic author (Lücke) goes so far as to assert that he can almost invariably tell before extirpation the exact histological nature of any given tumor—an assertion, by the way, which I should like to see put to a practical test.

As regards treatment, it cannot be said that much new light has been thrown by the new theories. Only this much may be said, that all the pathological world, with but few exceptions, now hold fast the belief in the local origin of all tumors. These new theories emphasize the fact which all pathologists have been aware of, that no tumor, not even the innocent lipoma, is absolutely safe. There is no tumor which may not cause secondary growths, or if you like it better, there is no person whose tissues may not so far lose their powers of physiological resistance, as to permit invasion by multiplying germs which chance to be in their neighborhood. The practical conclusion is that all growths should be removed in the earliest stage of existence in which they may be recognized as morbid tumors.

Relation of Alimentation to Infantile Diseases.

Occasionally, within a few years, attempts have been made, but with little effect, to startle the people into a sense of the fearful meaning of the undue proportion of sickness and death among children under two years of age—an age when, according to the belief of scientific men, sickness and death should be almost unknown. A few individuals are shocked for the moment at the figures presented, but yet little is accomplished so far as teaching the masses the cause and prevention, and but little improvement is made. Is it the fault of the profession in not enlightening parents and equally ignorant nurses? Are there phases of the question upon which even the profession need more light?

Statistics prove that nearly one-third of all deaths are of infants under one year! This is not merely among the wretched poor, either in city or town, not among the crowded tenement population solely, nor chiefly; but everywhere, among the rich as among the lowly, children are born to spend their first two years under conditions that, however seemingly favorable, are yet such that it is the exception rather than the rule when an infant escapes a severe illness during his first twelve months, while about one-third of the entire number are *surely doomed to die* within that time. Nearly all have a good beginning and thrive to the satisfaction and delight of parents and friends for the first few weeks or months, but it is only a question of a little time—almost to the last one they take their turn with an enemy that seems well nigh relentless.

What is the significance of this statement? What is there startling about it? Evidently nothing, for we read it in our Saturday journals every week, and yet take our breakfasts well and sleep soundly 'o nights. Simply to read the report "whole number of deaths for the week 172, under one year, 65," gives the thoughtless reader no adequate idea of the enormity of the evil.

Here is the real meaning. Of every hundred mothers who press their new-born babes to their bosoms to-day, *twenty-five* must surely watch and weep while the loved ones waste and sink into the grave before the year goes out. Every fourth mother may know that the end will come only when her scald-

By an oversight the name of the author of this article was omitted. It was written by Dr. C. E. Page, of Biddeford, Maine.

make a kind mother, but not necessarily a good one. They claim much on the score of "common sense." Common sense is a good box, but the knowledge we avoid through prejudice will never be found therein. In spite of boundless love, in spite of instinct, in spite of common sense, our little ones continue to perish prematurely in fearful numbers. Why is this? Nothing of the sort occurs among our domestic animals. If anything like a corresponding mortality was experienced among calves, pigs or poultry, the whole country would be exercised to ascertain the cause and prevention. Far and near agricultural societies would agitate the question; it would be the theme of every State fair oration, State governments would move in the matter and even national aid would be invoked, and obtained, to "stay the plague."

It is a shame, a disgrace to the race, that this condition has always existed, and still exists, without sensible improvement. The whole brute creation rear their young with a certainty of their arriving at maturity without sickness of any sort. The young of man alone are doomed to run the gauntlet of cruel and needless suffering from which but few more than half their number escape to reach adult age; while, as has been said, nearly one-third of all *healthy-born* infants succumb the first year. Few of the remaining two-thirds escape a severe sickness, and about ten per cent more die before reaching two years. More deaths occur *under one year* than during the *next nineteen*, and *more than twice as many* die *under two* *years* than between *two and twenty*, as is shown by the following table, prepared by Dr. Emerson, for a period of five years,* embracing the years 1826, 1827, 1828, 1829 and 1830. The still-born were deducted from the mortality under the first year:

	Under 1 year.	Between 1 and 2.	Between 2 and 5.	Between 5 and 20.	Totals.
January	281	81	102	109	573
February	382	109	123	131	745
March	322	119	122	138	701
April	342	107	125	122	696
May	250	98	107	107	562
June	510	148	84	105	847
July	836	249	117	120	1,322
August	546	317	120	165	1,148
September	377	221	140	185	923
October	324	127	117	153	721
November	267	90	114	132	603
December	269	90	114	135	608
	4,706	1,756	1,385	1,602	9,449

Dr. Emerson, after all his care in compiling this and other tables connected with this subject, failed to account for the disgracefully disproportionate mortality among infants. The great excess of deaths during the summer months he attributed solely to the heat, and, indeed, if we look no further than the table, this would be the natural conclusion. Dr. Dunglison,† referring to these figures and to Dr. Emerson's conclusions therefrom, says: "We have already said that cholera infantum is the great scourge of our cities during the summer months, and this affection is doubtless in part occasioned by excessive heat, but that this alone does not induce it is shown by the fact that in country situations, where the heat may be as great, it is comparatively rare." And again: "It has been already shown that not only is the general mortality of London greater than that of Philadelphia, but the deaths at the ages most liable to cholera infantum are more numerous also—a fact which confirms the remark just made, that something more than excessive heat is, in such cases, the lethiferous agent." He assigned as one great cause of excessive infant mortality defective ventilation. This cannot account for the fearful increase of deaths of infants in summer, for the reason that at this season the houses of all, rich and poor, are better ventilated than in winter, for doors and windows are freely opened. Still it is true that, take the year through, the vital necessity of pure air is generally disregarded. Even the right amount of food cannot become nutritious without being vitalized by pure air in the lungs.

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* We give the statistics of fifty years ago, in order to prove by recent figures that no improvement is perceptible.

† Robley Dunglison, M. D., Professor of Materia Medica, Therapeutics, Hygiene and Medical Jurisprudence in the University of Maryland, etc.

The frequent "colds," so-called, are in most cases nothing more nor less than symptoms of a clogged system—the result of overfeeding. It will generally be observed that "colds" are preceded or accompanied by a closed state of the bowels, the system is clogged, so to speak, and the sneezing and running at the nose are nature's efforts to clear itself. This is equally true with adults. It will be found impossible to avoid these "colds" if attention, however close, be paid solely to the changes of temperature, wraps, etc. Nature, when in prime condition, is marvelously well prepared to guard against the ordinary changes, and, generally, against even violent changes of temperature, but if out of condition, she may be powerless to avert danger from even the slightest variations of temperature.

The clothing of the young infant should be warm, with flannel next the skin. Soft flannel will not trouble the skin, nor prove uncomfortable in any way. On the contrary, it is more comfortable in summer, as well as in winter, than any other fabric, and prevents much of the danger from occasional draughts. It is thought by some to make the little one "too hot," but such have not learned that it is not so much what we put *on* as what we put *in* the baby that creates the fever.

It is of the highest importance to secure against wrong conditions as to air, clothing and cleanliness, but we shall presently see that the chief danger does not lie in this direction.

The following facts and figures compared with the table already given will show that not much improvement has been made during the past fifty years—that the *value of infant life has not increased!*

According to the returns of the Board of Health of Philadelphia* there were born in that city, during the five years ending Dec. 31, 1870, 85,957 living infants, of whom 25,636 died before they were two years old, and a total of 31,662 before their fifth year—nearly 37 per cent.

In New York city 53 per cent of the total number of deaths occur under the age of five years.†

"It certainly cannot be supposed that the Creator intended that all these little ones should suffer and die. There is every proof to the contrary. Has he not wisely and beneficently adapted all their physical wants to the circumstances in which they are supposed to be naturally placed? Has he not surrounded them with every condition and requirement necessary for the maintenance of life and health? For the very preservation of life, has he not ordained certain natural laws to be observed, the neglect of which necessarily brings disease and premature death?" "Allowing that some of the causes of infant mortality are and always will be more or less unavoidable, yet it will be conceded that the greater number of deaths must be due to causes largely within our power to remove."‡ Of 9,873 children who died in Massachusetts in 1870 under five years of age, more than one-half of the deaths were due to affections of the digestive organs.‖ "Of 11,382 children under twelve years of age, treated at the Dispensary for Sick Children in this (New York) city, during the past three years, 3,243 were suffering from affections of the organs of digestion. It will not be supposed for one moment, even by those ignorant of medical knowledge, that very many of the above cases were due to congenital or unavoidable causes; but, on the contrary, such figures most convincingly prove that the great prevalence of digestive disorders in infancy and childhood must be due to causes arising from ignorance in their management, especially as to their alimentation."[*] In 1870, Dr. E. Ballard, of England, published a very thorough article on "Infant Mortality."[†] He showed that in five years (from 1863 to 1868) there were in England 314,242 deaths of infants under one year of age, of which 277,852 were due to disorders of the digestive organs. "We must arrive," says Dr. Ballard, "at this conclusion, that the infant death rate is nearly half as large again as it ought to be; and have next to inquire how it is that, in the five years referred to, *164,190 deaths happened more than there was due and proper cause for happening*. Considering what we know concerning the causes of thrush, atrophy, "teething" and convulsions, we will not be considered extravagant in asserting that half of these 314,242 deaths ought not to have occurred at all—that they represent roughly, for the five years referred to, the unnecessary destruction of infant life due to active or passive *criminality, ignorance and carelessness*." The report of a committee appointed in 1869 by the Obstetrical Society of London,[‡] supports this statement. It was found by that committee that errors of diet —*chiefly excessive feeding*—were general and most flagrant, and the report concludes: "Under these circumstances it is little to be wondered at that bowel and intestine diseases, followed by general wasting, are so alarmingly prevalent. Indeed this question of improper alimentation must be held accountable for a very large proportion of the excessive infant mortality which prevails." Dr. Dawson, quoting this in the paper before referred to, says in this connection, "So forcibly, indeed, is this experience impressed upon me, that I have but little hesitation in saying that much rather would I undertake the treatment of the majority of cases of gastric or intestinal disorders in infants without being allowed the use of a single article in the materia medica, than be withheld the entire control of the alimentation of the infant." If, therefore, it is a fact that the majority of the cases of gastro-intestinal diseases are the immediate or subsequent results of faulty alimentation, chiefly through the prevailing ignorance as to the proper requirements of the infant's stomach we cannot be too zealous in our endeavors to combat the misfortune that the young of the human species are not endowed from birth with the power of distinguishing good from injurious feeding. There the young of the lower animals has the advantage. He is fed on natural food only, from the beginning, because his father and mother *don't know enough to kill him.* Man, the reasoning being, is defeated by the animals who possess instinct only.[*] The argument may be used, that, as the majority of infants are fed during the first months of their lives upon the food intended for them by nature—breast milk—how can faulty alimentation be the cause of gastro-intestinal diseases in such? In answer to this question, I would say that the chief trouble in most cases is due to excessive feeding—*too many meals* and too much food at each —rather than any fault as to quality. From birth to the eruption of the teeth nature supplies the infant with material for its sustenance that is in perfect harmony with the needs of its economy, namely, its mother's milk, but every thing goes to prove that the liquid food received into the stomach must be in *such quantity* and received at *such intervals* as to admit of its perfect digestion and rapid assimilation. If therefore these requirements are not fulfilled, it necessarily follows that gastro-intestinal disorders of some kind will probably occur, which, if the evil be not corrected, from a slight ejection of undigested milk, will lead to chronic vomiting, enteralgia, constipation, intestinal catarrh, etc., which in their turn will lead to wasting, convulsions and death.* We have alluded to the fact that the farmer can count with surety upon the healthy life and steady growth to mature age of the calf he raises, yet perhaps not one of his children, however vigorous at birth, will escape a painful sickness, even if it escapes death, before its first year is ended. The subject of the care and hygienic treatment of young children is not taught in our medical colleges. Our medical students study the relation of the materia medica to cholera infantum, "teething," and the various ailments of infants, but with regard to the *prevention* of infantile diseases or the relation of alimentation to stomach and bowel troubles, they are left entirely ignorant—an ignorance not confined to the students alone. "The prominent aim of medicine being to discriminate and to cure *disease*, both the teacher and the student naturally fix upon that as their chief object; and are, consequently, apt to overlook the indirect, but substantial aid, which an acquaintance with the laws of health is calculated to afford, in restoring the sick as well as preserving the healthy from disease. In my own instance, it was only when entering upon practice that I first had occasion to feel and to observe the evils arising from the ignorance which prevails in society in regard to it."†

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*Infant Mortality, etc., by J. S. Parry, M. D., Philadelphia. Paper read May 5, 1871, before the Social Science Association.

†Relation between Alimentation and the Gastro-intestinal Disorders of Infants and Young Children. By B. F. Dawson, M. D., Physician to the New York Dispensary for Sick Children, late Clinical Assistant to the Clinique for Diseases of Children in the College of Physicians and Surgeons, New York. Paper read May 14, 1875, before the New York Medical Library and Journal Association.

‡Dawson.

‖"Proper Treatment of Children," Charles E. Buckingham, M. D., etc., Boston. Discourse before Massachusetts Medical Society, 1873.

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[*] Dawson.

[†] *British and Foreign Medico-Chirurgical Review*, April, 1870.

[‡] Transactions of the Obstetrical Society, of London, for the year 1869. Vol. xi, page 127.

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[*] "The Proper Treatment of Children." Discourse before the Massachusetts Medical Society, 1873, by Charles E. Buckingham, M. D., etc., Boston.

The question of "teething sickness" demands more than a passing notice. Can it be supposed, by even the most ignorant, that the cutting of teeth was an after-thought of the Creator, and that since the little ones generally come into the world toothless, this great mistake (?) could be corrected only by a painful and dangerous abnormal process? There is every reason to believe that they would get their teeth as easily as they do their toe-nails, if up to the dentition period they were kept in a perfectly healthy condition. "It is the popular idea that when an infant begins to teeth he is peculiarly liable to intestinal and other troubles, and when the disorders occur at this period of infant life, the cause is at once said to lie in the fact that the baby is teething, and that consequently it is an unavoidable misfortune that the baby is sick." The only misfortune connected therewith is the ignorance of the physician and attendants. In no sense is sickness an incident of teething. It is simply co-incident, and arises from the fact that it is at *about this age* that the digestive organs *begin to break down* under their grievous burden. Dr. Dawson says on this point: "If there ever was an absurd fallacy fastened upon the popular mind, it is in my opinion this bugbear of 'teething sickness.' I have never seen such a case myself, and it is beyond my comprehension why the Creator should afflict only the young of man with a normal physiological process dangerous to health and life. But nevertheless multitudes of infants are taken sick and die just at this period with gastro-intestinal disorders, and some cause there must be for it. The latter is not difficult to find; it is faulty alimentation either prior to, or, as is most generally the case, during, the cutting of the teeth." The food should still continue to be breast milk, where this is possible, or, in lieu thereof, cow's milk with a slight addition of cream and a trace of sugar, and upon no consideration should any of the farinaceous or starchy articles be added until nearly all the teeth appear. When nature has brought the infant to this period—to its completion—then it may justly be considered that the time has arrived when he can handle something of the mixed diet of the adult. But the change, even then, should be very gradual. Milk should never be skimmed for infants, except as suggested, to add a little cream to their milk. Since it is proved by analyzing cow's milk, that it is about ten per cent less rich in fat in proportion to the caseine than is the fact with woman's milk,* and as it has been demonstrated that the caseine of woman's milk coagulates more finely and softer than that of cow's milk, may this not justly be attributed to the influence of the larger amount of fat mixed with the caseine of the former? If such is the fact, then in place of removing the cream from cow's milk, we should more properly add more or less cream to the milk, and in practice it will always be found that great improvement will follow the use of rich, creamy milk in place of the skimmed or watered mixture.[*] But it must not be given too rich, nor in too great quantity. As to the error of adding starchy matters, under whatever guise, to the milk, Dr. Prospiro Sonsino,[†] of Pisa, in an article entitled, "Researches on Infant Digestion," proves by a number of experiments that there is a physiological or normal dyspepsia to starchy food (absolute inability to digest) in the first portion of infant life. And Dr. Routh also protests against the use of all starchy matters for infants, before they have their teeth. This view is also supported by Professors Huxley, Youmans, Dalton, and, I believe, all who have examined the subject. As to the addition of water to cow's milk, so common for hand-fed infants, a moment's reflection must convince any intelligent person that the effect is (*a*) to cause the caseine to coagulate harder and more coarsely, and thereby lessen its digestibility; and (*b*) to force the infant to swallow an undue quantity of water, which, beyond a teaspoonful occasionally, given alone, must and does prove a serious injury. Certainly there is no more nutriment in a given quantity of milk by reason of the added water, and the latter being in excess of what the system requires, all the organs of digestion are injured, as well as the excretory organs, that have an abnormal amount of labor to perform to eliminate it. Kidney troubles—constant wetting—result generally from (1) overfeeding, and (2) the addition of water to the milk. As has been indicated, the chief cause of infant mortality is excessive feeding. Ever since time began the one great anxiety has been to keep the little darlings full of something from the time they come into the world until their little bodies are carried to the grave, or by strange good luck survive this treatment until they reach an age when an approach to regularity is exercised in their feeding. During the first year infants are, as a rule, stuffed early and late, hence the greatest mortality is at that age. After this they are allowed more time between meals, and a less proportion die. For example: while about one-third of the deaths are of children under one year, only about one-fifth are between one and five years. After five years of age children are fed on something like the three-meal system, and comparatively few die between five and twenty years of age. In spite of these figures, or because their significance has not been noted, it has not occurred to the people to *begin* with less meals. The farmer who wants to raise the best possible animal from the calf lets the creature suckle in the morning at milking time, and again at night, with possibly a meal at noon. He is wise enough to feed his calf only twice, or, at most, three times a day, and the result is that the calf thrives from birth, and sickness is unknown. The same farmer has a baby born, and a contrary course is pursued with a contrary result. Even before nature supplies the food—before the mother's milk comes—the ignorant nurse undertakes to supply the seeming deficiency, and doses the baby with sweetened water, cow's milk, catnip, or the like, instead of giving nothing but what nature supplies, which, if the mother nurses, is sufficient and best. The dosing referred to results in stomach ache, and the cries of pain being mistaken for cries of hunger, down goes another dose, until finally when the mother's milk does come, the child's stomach often is in a condition to revolt at anything. If the little victim goes along for a few weeks or months it is generally fed every hour or oftener, unless it happens to be, as is often the case, in a lethargic state for several hours, sleeping off a surfeit as an adult sleeps off a "drunk." It is rarely the case that an infant is not eating and vomiting, alternately, from morning till night; indeed, so common is this that it is regarded as altogether natural. It is expected that the child will "throw up" continually, at least after being fed, and the nurse declares that "it is all right—nature takes care of all that." It is not all right; it is all wrong. Nature indeed revolts at this barbarous treatment of a baby's stomach. Early and late, often during the night, as through the day, the stomach is kept full and distended. Every hiccough is an attempt of the stomach to eject its overload, and the habitual vomiting is simply the result of cramming, until the little, helpless babe has become a confirmed dyspeptic.

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*Dawson.

†Andrew Combe, M. D., "Principles of Physiology Applied to the Preservation of Health."

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* Physiological Chemistry, vol. v, p. 289.

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[*] Dawson.

[†] *London Practitioner*, Jan. 10, 1873.

It is not to be supposed that parents intend their children, at whatever age, to overeat, any more than they themselves *mean* to eat to excess. The trouble in either case is they ignorantly believe that the appetite is a safe and the only guide, or if aware that there is a likelihood of injurious over-indulgence, they have no definite knowledge as to what is a sufficient quantity for themselves or their children, at different ages. Hence, though individuals may mean to be conscientious in the matter, they will yet err in many ways unless they study the question intelligenlty and conscientiously, and with all possible aid from the observations and researches of others.

There is every reason for believing that dyspepsia—the parent of nearly all our ills—is the product of overfeeding in infancy, and confirmed by gluttony through life.

Dr. Dawson gives his experience on this point: "I am quite sure I am not alone in my experience of having seen very many infants in whom the cause of gastro-intestinal disorder was due solely to too much and too frequent nursing, and who were restored to health by remedying these abuses. And my experience in consequence has led me to believe that the majority of gastro-intestinal disorders (indigestion, dyspepsia) of even the severest types are due to too much and too frequent nursing.

But supposing we are called upon to attend a case which, from the above causes, is suffering from either vomiting, constipation, wasting or diarrhea, or two or three of these disorders together; what are we to do? Are we to remove the child from the breast for certain intervals? It may be said if we deprive the already wasted body of nourishment for any length of time, will we not run the risk of losing our little patient? To these questions I reply: *Starve the stomach! give it rest!* Does not the vomiting or the diarrhea tell us in the plainest language that the digestive organs need rest? Will we gain any benefit, I ask, from ejected or undigested food, even if it cause no severer disturbance? Certainly not; therefore, is it not better by far that not even so small a quantity as a teaspoonful of milk be taken, if not retained and assimilated? Stopping all medicines in such cases, I allow the digestive organs perfect rest for six, ten, or twelve hours, according to the urgency of the case, generally giving nothing but a teaspoonful of cold water every fifteen or twenty minutes, and when nursing is resumed, allow the child to suck for a few minutes only, again nothing for five or six hours and so going on for a couple of days. So successful has this method been with me, that, when strictly carried out, all nausea and vomiting will be found to cease at once, the small amount of nourishment taken will be retained and digested, and the organs return to their proper duties and the child be restored to health.

Constipation, too, so common in otherwise healthy infants, is generally due to excessive and too frequent feeding, and is the common accompaniment of the vomiting already mentioned. The explanation of this constipation is quite simple. The stomach being overburdened with food, and consequently overtaxed with work, each supply of milk, instead of being coagulated into fine and soft coagula, which are readily acted upon by the secreted pepsin, comes into contact with the semi-digested acid coagula of the preceding meal, and in consequence is coagulated more rapidly than it should be normally, the coagula being larger and harder. Such masses, if not ejected, pass into the intestinal canal, but little or not at all changed by the digestive process, will impact together on contact, and from their size and dryness are with difficulty passed along the bowels, thus giving rise to constipation, colic, etc. The unusual volume and accumulation of such curds will not unfrequently also cause such an irritation of the alimentary canal as to give rise to an intestinal catarrh of more or less severity, which may ultimately run into the severest form of intestinal disease."*

One cause of excessive feeding exists in the desire of parents to have a fat baby and to be able to say that he gains a pound a week—most people, in fact, have a mania for fat babies. Entire ignorance prevails as to what is the normal growth of an infant from birth.

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*B. F. Dawson, M. D.. etc., New York.

We all know that the *common* growth—or rather increase of *weight* for the first two or three months after birth, is from one-half to one pound a week. In point of fact this is altogether and always abnormal, and does not represent a healthy growth at all, but merely a rolling on of fat, and *means disease.* I will cite a typical case :

C. P. at birth weighed six pounds, and at five years of age he weighed 42 pounds, and was regarded as a well-developed child. Here is an increase of 36 pounds in five years—an average of about seven pounds a year. He really gained about a pound a week for several weeks after birth—weighing fifteen pounds at three months—an average gain of three-fourths of a pound a week. For the next twelve weeks the average increase was one-half pound a week, bringing the weight to 21 pounds at six months. At this point there was a complete check, and he soon began to lose flesh, and for the succeeding three months declined steadily, though *eating greedily* and vomiting freely every day. The bowels had become constipated, and this trouble increased until there was no movement except by enema, and then with great difficulty. Unmindful of the fact that the greedy little fellow had been running his digestive organs at high pressure, laying on fat, vomiting up what milk the stomach could not possibly retain, until at last no power remained to digest anything, the parents, under their physician's advice, began a fruitless search for something that might "agree" with the stomach. The child was evidently dying for want of nourishment, and the feeding was continued at intervals of three hours, in spite of continual vomiting. The parents, although urged to give the stomach the rest for which nature so strongly appealed, dared not make the change. At last the natural result—cholera infantum—followed, and death seemed near at hand. At this stage I was called to attend the case. I gave no medicine at all, and no food during the night. At 7 A. M. I gave about two tablespoonfuls of cow's milk mixed as recommended elsewhere. Nothing more until noon, except a teaspoonful of cold water occasionally. At 12 M. the same amount of food was given as for breakfast, and for supper, at

5 P. M., the same. *Every drop was retained*, or I should have decreased the quantity or omitted the mid-day meal altogether. A comfortable night's rest followed, with but two or three movements. This treatment was continued, and it is sufficient to state that the cure was complete in three days, and nothing remained but to increase the quantity at each of the three meals, as the stomach recovered strength to bear it. This was done very gradually, and the child became the picture of health. Up to the time of its sickness it had never experienced a day of perfect comfort—crying and fretting through the day, sleepless at night, wetting six or eight times a night, and often twenty times during the twenty-four hours. After recovery, and on three meals, all troubles had disappeared, and thereafter scarcely a moment's discomfort was known. There has never been a lack of appetite—the growth has been steady from the time it was resumed, which was not until some weeks after recovery. If at the first symptom of overfeeding—hiccough or vomiting—or of later symptoms (abnormal increase of fat), the supply of food had been sufficiently reduced, all sickness would have been prevented. The point I wish to emphasize is this : The child had from overfeeding arrived at a point where his organs of digestion could not perform their functions. He was *literally starving to death* on five meals, of nearly a gobletful each of cow's milk, and was raised from this condition, cut his first teeth, grew and thrived on *three* meals of about *one-third* of a goblet each. On the five large meals he appeared, and indeed was, hungry most of the time. On the three small meals he never exhibited hunger except at the regular meal hour. In fact the child's whole nature seemed changed, from being a torment to himself and parents, he became a constant comfort and joy to all the household. No definite rule can be given for the amount of milk necessary for a hand-fed babe at any given age. It will not, however, vary much from one pint for an infant of nine months. This amount, divided into five meals, say at 6, 9 A. M., 12 M., 3 and 6 P. M., would in y opinion, insure the best results. The whole night should voted to sleep, and a child that is properly nourished—is

not overfed during the day—will sleep soundly all night. Nor should an infant be *awakened* for food during the day time, merely because it is "time," even if it skips a meal occasionally.

Can any one tell why it should be the ambition of parents to roll on the fat at the rate of a pound a week for the first few months and have "the fattest baby in the neighborhood," and consequently the one most likely to die before it is a year old? The normal condition of man is not that of obesity at any age, and whether at one month, one year or at forty, fat, beyond a well-rounded frame, is abnormal, and, therefore, disease.

We talk about "baby farming" and anathematize the starvation of the little victims who are put out to nurse with that object in view, while right in our midst, everywhere, north, south, east and west, children are *starving to death* under the eyes of parents who would pay a dollar a drop for food to restore them. Healthy-born children, too, and surrounded by every requirement necessary to insure their living to adult age —every requirement except one, viz.: the knowledge on the part of their attendants of the fact that the Creator did not design that a baby's stomach should be treated like a toy balloon! They are starving because of overfeeding to an extent that has so impaired the organs of digestion that no power remains to digest or assimilate the food, however much may be swallowed.

It needs to be impressed upon the minds of the people that it is not the large quantity swallowed, but the *right* quantity *properly digested* and *perfectly assimilated*, that alone can insure the best results with either children or adults.

*Eustace Smith most truly says: "The great principle at the bottom of all successful feeding, viz.: that an infant is nourished in proportion to his power of digesting the food with which he is supplied, and not in proportion to the quantity of nutritious material he may be induced to swallow, is so obviously true that an apology might almost seem to be required for

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*Hand-Feeding of Infants, by Eustace Smith, M. D., etc., *London Sanitary Record*, Also, *The Sanitarian*, New York, January, 1876.

stating so self-evident a fact; but experience shows that this simple truth is one which in practice is constantly lost sight of. That that infant thrives best who is most largely fed, is an article of faith so firmly settled in the minds of most persons, that it is very difficult indeed to persuade them to the contrary. To them wasting in an infant suggests the need of a larger supply of food; every cry means hunger and must be quieted by additional food."

When this matter is better understood, the rearing of children will be a delight in the household, instead of a torment from which so many shrink, and avoid *at the price of guilt.*

The constant stuffing of children at any age, a custom almost universal, is extremely cruel, notwithstanding the fact that it springs from the kindest promptings of the human heart.

It is the belief of those who have had the most ample experience in this all important matter, that five meals a day only, are best from birth to the age of one year; and the intervals should be at least three hours between meals. If care be taken to guard against overfeeding at either of the meals, it is believed that the following high standard will usually be attained, viz.: Ease and comfort through the day and perfect rest at night, freedom from hiccough, vomiting, constipation and diarrhea. There will be a steady gain in weight from month to month, by *reason of healthy growth* without the abnormal accumulation of fat so surely indicative of disease. Who could but rejoice at such a consummation, and especially in view of the fact that it guarantees the greatest possible happiness for the infant as well as for all who approach or have the care of him, and increases the probability a hundredfold of his growing to hale, hearty manhood, with confirmed health and the best possible physique from any given stock?

Although it is the rule, rather than the exception, no good reason can be given for a child's habitually hiccoughing or throwing up its milk, any more than for a man's sitting at
and stuffing himself, like an old Roman gormand, until
Dr. Dawson says on this point: "The ejection of
ursing, which is ignorantly considered by many to

be the sign of a healthy child, and therefore not to be interfered with, in fact denotes overfeeding, and is the effect of reflex action, excited by an overdistended stomach, nature thus protesting, in language most plain, against the greed of the infant and the ignorance of its mother. As my experience has taught me, most infants who thus throw up after eating, suffer also, sooner or later, from enteralgia and constipation, and other symptoms of indigestion, which latter are permanently relieved only when the greed of the child is restricted." If this course be taken at the first symptoms of indigestion—hiccough or vomiting—a comparatively small reduction of food will answer, and the child be kept in good condition ; but if delayed very long, the irritation of the stomach may increase until not even a tablespoonful can be wholly retained. Whenever such a condition exists, the time has come to skip a meal altogether, whether the number has been greater or less, and in an aggravated case, one of long standing, as Dr. Dawson says, it may be imperative to give the stomach even twelve hours' entire rest.

The advantages of the system of alimentation here recommended are many and obvious. Let us briefly consider them. (1) If it is right, this fact alone should satisfy every one. (2) The mother is not sapped to furnish an abnormal quantity of "swill milk," to the injury of both herself and child. (3) The infant is receiving regularly and appropriating perfectly the proper quantity of rich, nutritious food. (4) The appetite is regular, because the stomach and bowels are in condition. (5) He will never have what we understand as the morbid, dyspeptic appetite—always craving food—because (6) his whole system is perfectly nourished. These points gained, who can fail to see the grand results to all concerned? The mother is relieved from many inconveniences attending the care of a cross and exacting baby—cross and troublesome because overfed and undernourished.

With right care as to cleanliness, clothing, pure air, etc., the death of a healthy born child under two years would soon be regarded as a strange phenomenon. Infant mortality would be almost entirely confined to the children of the ignorant or those who will not practice the means of prevention. Cholera infantum would be almost unknown, "teething sickness" a thing of the past, and the little ones would be in a condition to combat successfully the various infantile diseases or escape them altogether. Extending the principle through life more of our youth would be free from the delicate condition now so common, the effect of past and present overindulgence; temperance in all things would much more abound, and the race would progress more rapidly towards the ultimate physical perfection—a sound mind in a sound body—designed by the Great Creator.

Reports of Societies.

Detroit Academy of Medicine.

July 23d, 1878.

Dr. Spalding read the paper of the evening, his subject being "Aids to Labor other than Instrumental." (See DETROIT LANCET, p. 658.)

DISCUSSION.

Dr. Noyes—The opinions expressed by Dr. Spalding coincide very perfectly with my own. The tendency to use the forceps upon all occasions is becoming only too general, and the damage done by this abuse of a valuable instrument, or by its use in ignorant hands, is incalculable. I certainly approve of the use of ergot, but here again we encounter danger, if its employment is not regulated by the rules which experience has taught us. There is certainly too much fashion in the practice of obstetrics, and if, instead of following the dicta of certain men, we more frequently allowed the labor to follow the course which nature directs, the nearer we would come to the right course of conduct.

Dr. Carstens—I certainly believe in the use of forceps, if for no other reason than this, that ergot sometimes kills, while the forceps do not. The rapidity and the ease of a labor depends very much, I believe, upon the nationality of the patient. As a uterine motor stimulant, I most frequently use quinine. As another aid to labor I might make mention of the use of the steam bath, which stimulates the uterine contractions and shortens the duration of labor.

Dr. Jenks—I am very glad to have heard the doctor's interesting paper, although I must take exception to some of the things which he has mentioned. As one of the preceding speakers has truly remarked, there is a great deal of fashion in the practice of obstetrics, and if on the one hand, at the present moment, we find the use of the forceps lauded in almost every medical journal, we must not forget, on the other, that already in the past, after becoming quite popular, they for a time fell into almost complete disuse. Remember the fact, that at one period no lady in London would be confined unless the forceps were employed, and so common had the practice become, that the caricature of Tristram Shandy was written to ridicule it. When the power of ergot became known, the fashion soon turned towards it, and thousands of lives were sacrificed by the improper use of the drug. But even to-day, ergot cannot take the place of the forceps, and because the latter are sometimes used in a bungling manner by unskilled hands, that is no reason why they should be thrown to one side. Moreover, the pains excited by the former are not in imitation of nature, and to the danger arising from the tetanic contraction of the uterus, there must also be added those arising from the toxic nature of the drug. But with the forceps I do not think there is much danger of compression, for such is not the purpose of the instrument—it being rather one of traction and modeling, although a badly-shaped instrument might kill by compressing or crushing the base of the brain. I do not see any necessity for hurrying up the first stage, for there can then be no danger to the child or mother, unless a convulsion or hemorrhage is taking place. The action of quinine as an oxytocic is certainly quite reliable, and I like to employ it. I would not wish to put in practice quite as

much conservatism as Dr. Spalding
that if a man is skilled in the use o
use them more safely, and to better
than if he acted in a more conservati

Dr. Noyes—In my own practice I
branes unless it is absolutely necess
except when, from experience, I fe
place.

Dr. Bradley—I certainly would n
any case, where I judged the liquor a
and the membranes too short and ten
to press upon the os uteri.

Dr. Brown—I certainly believe in
patient is becoming exhausted, or i
powers fail to perform their work fro
once the instrument is applied, I do n
continued force until the child is extr
pains, excited by the primary tractio
more damage done to the perineum w
not employed than where it was.
may add that I frequently make use c
dilatation, and, again, it has several t
service in assisting a head to emerge,
were not directing in the pelvic axis.

Dr. Andrews—When I consider th
of education which the student of t
find any excuse for a graduate who is
the forceps in an intelligent manne
ergot considerably, but only after the
of the gentlemen have spoken of fol
that nature is more frequently at
admitted, for our civilization has so
of living, that the original condition
modified, and we must resort to a
complete what was formerly the prov
strength.

Dr. Connor—In the early years

reading a paper which spoke of the great assistance to the completion of labor which might be derived from changing the position of the patient, so that the resultant of the forces brought into play might always be directed into the line of the axis of the pelvis. I have frequently made use of the principle, and always, I believe, to the advantage of the woman. The forceps, I think, are now only too frequently employed, in order to terminate cases, for which, if the doctor only wished to give himself the trouble to think, he might easily find less objectionable means.

Adjourned.

August 13, 1878.

EXHIBITION OF PATIENTS.

Dr. Carstens—This man, thirty-two years of age, is a scroll-sawyer by trade, and presents a peculiar nervous difficulty, consisting in a paresis of the muscles of the left side, particularly affecting those of the arm. The radial pulse is weaker than that of the opposite side—the difference in temperature of opposite limbs is evident to the naked hand. The muscles of the left side are occasionally subject to spasmodic contractions. His pupils are normal and he projects his tongue without deviation to either side. He sometimes has frontal headache. Some days he is perfectly free from all his symptoms and feels as well as he ever did in his life.

Dr. Cleland remembers that he saw the patient in a similar condition about three years ago. He then placed him on mercurial treatment, combined with iodide of potash, and the patient got well. At that time the doctor thought that the trouble was due to the man's business, as he was continually jarred by the working of the saw. He considered the affection as one of the numerous forms of the same kind of trouble to which the term railroad disease has been frequently applied.

Dr. Carstens—The patient has already taken the treatment spoken of without getting any better, and as he has already recovered while under the treatment of a regular physician, a homeopathist, a quack, and an old woman, it is difficult to say whether treatment was of any benefit or not in bringing about this result.

PATHOLOGICAL SPECIMENS.

Dr. Noyes—Here is a pathological specimen taken from a little child, who by an unfortunate fall upon a lawn, struck upon some object and lacerated the eye in the ciliary region. I removed it on account of the symptoms to which it gave rise, and not simply because it was lacerated. There is a tendency at the present time to take out all injured eyes, a tendency which resembles, to a certain extent, the fashion, of which we spoke in our last meeting, of employing the forceps on all possible occasions. This must be opposed, because the part of the eye remaining in the orbit, if it causes no untoward symptoms, forms a good stump for an artificial eye. It is true that if the globe is only slightly injured in the ciliary region, it is very apt to cause sympathetic trouble, but it is not always the case, for I have patients in my own practice who to-day are carrying eyes which were so injured.

Dr. Carstens—Here is a specimen of a cancer, affecting the pyloric portion of the stomach of a woman fifty years of age. Fifteen years ago she had an inflammation of the bowels, but, apart from this, she has suffered from no other trouble. Three weeks since she commenced to reject everything which she took by the mouth, and this incessant vomiting continued until her death, which took place last Friday. In the *post-mortem* examination of the body we found this tumor, and the pyloric orifice was so constricted by it, that it would admit the passage of but an ordinary lead pencil. It is strange that the symptoms were so late in manifesting themselves.

The name of Dr. J. W. Robertson was proposed for memberbership and referred to the appropriate committee.

Adjourned.

August 27, 1878.

EXHIBITION OF PATIENTS.

Dr. Chapoton—This young woman, aged 22, presents some peculiar physical symptoms in connection with the thorax.

Her family history is exceptionally good. She herself was never sick until about eighteen years of age, when she had an attack of malarial fever, after which she regained her usual health. At the close of 1875 her friends perceived that her complexion was not nearly so high-colored as in the preceding spring, and in the beginning of 1876 she commenced to have attacks of dizziness. During the month of June, whilst laboring under one of these, she fell down a flight of stairs. Apart from this vertigo, she felt very well, until during the fall of 1877, when she complained of pains in the left side and between the shoulders, loss of appetite, etc. Her physicians then treated her for some derangement of the liver, and although she recovered her health to some degree, still the pain in the back continued. This spring, the same general symptoms returned, and during May I saw her for the first time. The general tint of the skin pointing to some grave derangement of the circulation, I examined the chest and found a hypertrophied heart, beating powerfully 120 times per minute. The valvular sounds were very distinct and apparently normal, but with the heart's systole, a distant but perfectly distinct bruit was heard. Applying the ear to the back, where the pain was complained of, this bruit was much louder and sounded as if directly under the ear. Pulsation was also distinctly felt over this spot. Although her general condition is much improved, the local condition, I believe, remains much the same. I diagnosed the case as a probable aortic aneurism, and Dr. Connor, after examining the patient, concurred in the opinion.

The membership committee reported favorably upon the name of Dr. J. W. Robertson, and recommended him as a member.

Dr. Inglis showed two suppositories, not made in Detroit, one of which was fresh from the box, whilst the other, he had taken that day from a vagina where it had been for three and a half weeks. There was hardly any difference between them, except in the amount of discoloration.

Dr. Bradley asked what were the best means recommended for the removal of gunpowder grains from the true skin of the face. Dr. Connor advised the use of a small punch just large enough to cover the grain. In this way hardly any scar was left. In the case mentioned, the grains were too numerous to employ either this method or the needle.

The meeting adjourned.

September 10th, 1878.

The minutes of the preceding meeting were approved as read.

The President introduced to the society Dr. Robinson, of Utica.

Dr. J. W. Robertson, whose name had been favorably reported by the Committee on Membership, was unanimously elected as an active member of the association.

Dr. Cleland read the detailed history of an interesting case of phthisis.

DISCUSSION.

Dr. Andrews—The doctor's history of the case states the exact condition of the patient, when I saw him last Friday. From the state of his pulse and his general appearance, I saw that he was near to his end. The only explanation of the trouble which I can offer is, that it was a case of acute tuberculosis, but that the rarefaction of the air in the bronchial tubes and air cells from the accompanying emphysema masked the symptoms due to condensation. The respiratory sounds were harsh all over the lungs, whilst sibilant and moist rales were heard here and there, so that I concluded that the trouble was general. Death was evidently coming on from asthenia, as in all acute cases of tuberculosis, where death takes place before breaking down of lung tissue has commenced. The patient really burns up.

Dr. Connor—Dr. Robinson spoke to me of a case occurring in his practice which appears to be somewhat similar to that of Dr. Cleland.

Dr. Robinson—What particularly interested me in my case was the vast amount of tissue involved. Shortly after the death of his sister from consumption, the young man began to fade away, but I could not discover any apparent cause. I accordingly placed him upon simple tonic treatment, to which he quickly responded in a very gratifying manner. Shortly after he came to Detroit on a visit, and falling ill, he called in, through his friends, the homeopathist, Miller. The latter soon turned him over to M. Hilton Williams for the treatment of his catarrh, but as he continued to grow worse, he determined to return home. Some time after his arrival, I was again called to him, and was much surprised to find vast consolidations and pericardial and pleural dropsy. All the time that he was under my care he had high fevers. On examination after death, the lungs seemed to be generally involved.

PATHOLOGICAL SPECIMENS.

Dr. Noyes—Foreign bodies in the external ear are of great surgical importance on account of the discomfort and danger to which they give rise and the trouble of removing them when impacted against the tympanum. This pebble-stone I removed from a child, two years of age. By casting a strong light down the meatus, I saw it lying flat against the drum, and that there was just room enough to pass Critchett's spoon around its edge. I accordingly introduced the spoon and fortunately removed the stone. Lowenberg's method would, perhaps, have been safer, that is, by introducing into the meatus a stick wound around with cotton to which some glue has been added.

Dr. McGraw related a case of supposed congenital deafness, where after some time the parents syringing out the ear one morning discovered in the water two plugs of wax. After this expulsion the child heard. Is it not strange that such formations should take place so early in life.

Dr. Carstens—Mr. A. for fifteen years had suffered from progressive paralysis. His mental condition for a long time past has been most peculiar. Sometimes he would shut himself up for months secluded from the gaze of all. Before the commencement of his illness, he drank lager beer very heavily. An acute diarrhea eventually set in and he faded away and died. In the *post-mortem* we found a most beautifully marked arteritis. The atheromatous patches were very large. The brain was the softest which I have ever seen.

Dr. Walker exhibited samples of Bigelow's improved lithotribe and evacuator, and explained and demonstrated the mechanism of both instruments.

He also reported several cases in which he had used them with great satisfaction. The first he saw was with Dr. Yemans, and the patient was an old man of 65 years, disgusted with the profession generally, as he had already been the subject of both lithotomy and lithotrity, but still suffered with the symptoms of stone. The doctor procured the instruments exhibited, and removed from the patient's bladder 40 grains of detritus. The patient remained under ether an hour and ten minutes, recovered perfectly, and is now at his business.

The second case was a youth of 16, who still suffered after a recent lithotrity. A second operation relieved him of 40 grains of stone, but yet he complained, and a more thorough examination revealed a stone behind the pubis. The third operation was performed, and this time the evacuator brought forth 155 grains.

The doctor also briefly reported an operation in which he had removed four and a half inches of a patient's rectum on account of cancerous disease. He had been induced to operate from the reports of numerous cases, where, after removal, the patients had enjoyed freedom from return of disease for a considerable time.

Dr. Noyes—I hope the patient will get on well, both for the doctor's sake and his own, but on the subject of cancers there is a great difference of opinion among the members of the profession. In all mucous situations, cancers seem to thrive well, and so to obtain all the conditions for their rapid development and propagation, that even if removed, they usually speedily return, and kill the patient anyway. I prefer under such circumstances to leave them alone.

Dr. Yemans—I have lately removed a portion of a uterine cervix, on account of a growth, which upon microscopical examination by Dr. Chapoton, proved to be a lobulated epithelioma. The patient is doing nicely.

Dr. Bradley read a short paper, entitled "Report of a case of death, partly due to arterial degeneration," forwarded by corresponding member Dr. Beech, of Coldwater.

PREVAILING DISEASES.

Dr. Bradley—Several cases of scarlet fever have occurred in one of my families, but the disease was of so mild a type that I was not called in professionally.

Dr. Andrews—I have lately seen several cases of continued fever, but the temperature ran quite low. In several patients the marked symptoms disappeared in three or four days, but a slight fever continued for three weeks.

Dr. Noyes—I think street archery is prevailing too much at the present time. Only a few days since, a boy made a target of his sister, and the pointed steel of the arrow just grazed the sclerotic and passed into the cellular tissue of the orbit. I at first thought that the eye was penetrated, but on dilating the pupil, I found the interior of the eye all right. The globe, of course, received a violent shock, and we cannot as yet say what may result from that.

Dr. Spalding—I saw a case a few days since, which was particularly interesting to me, as it was the first of the kind which I had met. The subject of it was a child three years of age, whose foramen ovale had never closed. On the least exertion, the child became of a blue tint, and its respiration was greatly impeded. The heart's valves seemed perfect, although a regurgitant sound was present, which, however, evidently did not arise from any defect in them.

Dr. Noyes—I saw a most striking case of that trouble in my brother's child, which, however, was older than the doctor's patient. On the very slightest exertion, the lips, tongue, and nails became of an almost indigo blue.

Dr. Andrews—I know a family in which all the members have been troubled more or less in this respect. One of the boys lived to his 26th year. Only one child was a really blue child, and it died in its bed. In another child, the tendency to discoloration was slightly marked, but it eventually grew better.

Dr. Bradley—The worst case I have ever seen was in my college days, and it died in its first year. Have also seen three cases in my own practice, which recovered after placing them in Meig's position.

VERBAL COMMUNICATIONS.

Dr. Andrews—I would like to relate the history of a man, aged 31, who died a few days ago. His pulmonary symptoms commenced with a cough like a bronchitis, a year and four months since; but the cough, a most harassing one, continuing, he was sent to Oconomowac, Wis., where he obtained relief from it, but caught an ague in return. In the autumn he came to Detroit, and as the cough recommenced, I made a very particular examination, but found no consolidation anywhere. He would then cough for an hour to an hour and a half without stopping. No hemoptysis. Stomach irritable. Temperature about 102, varying three degrees from morning to night. With the cold season condensation commenced to show itself, and he went to Texas. But the season being bad, he grew worse, and he left for Florida, where he felt better. In spring he went to Aiken, where he had an acute attack of pneumonia. He came here in June. The left lung was breaking down and the right was also commencing. He died last week. The peculiarity of the case was the occurrence of certain troubles three or four years ago, in Tennessee. While manager of a large car-shop there, he was overworked and received a sunstroke. His character had commenced to change before this accident took place, but afterward it became much more apparent. The bowels became irritable. He was very depressed, and, in fact, broke down, which is rather rare in phthisis. He had very queer hallucinations, but as he used chloral at the time, I ascribed them to it, and forbade him to take it. They continued, however, and his condition resembled very much puerperal mania. Two days before death he became quite rational, so as to talk for several moments. What was the cause of the delirium? It is very rare in phthisis, unless there are tubercles in the brain as well as in the lung. They gradually developed in his case, probably for some time before any were deposited in the lungs, and hence appeared the early change in character before pulmonary symptoms had manifested themselves.

Dr. Carstens—Some time since I was called to an infant ten months old, suffering from diarrhea. On examining the child, I found several spots of purpura hemorrhagica, and shortly afterward the child vomited blood, which evidently was not from the lung. In the course of twenty-four hours, the lower part of the body was black from the number and size of the extravasations. No clue to the cause of the trouble could be discovered. The child recovered.

Dr. Inglis—I saw the child several times before this difficulty occurred. It had diarrhea frequently. Before I left the city, the child already had a blue spot on each knee.

Dr. Carstens—My next curious case was that of a man, who had been run over across the chest. Pectoriloquy was marked and probably arose from rupture of lung into the pleura, although no bones were broken. Some effusion also took place.

The next patient was a young man subject to attacks of rheumatism. Two days before I saw him, he was feeling very well and went to bed in the same condition. On awaking in the morning he found a pain in his hip, which liniments, however, relieved during the day. But the following day, I found the leg two inches longer than its fellow. I believe it to be a thyroid dislocation.

Dr. McGraw—Six years ago I saw, with Dr. Kiefer, a young girl who presented a sample of simulated hip disease. She was sent to the Adrian mineral springs, where she recovered the use of her limb. The young lady, now 19 years of age, some time since began to lose all appetite for food and to present some symptoms of chorea. July and August she spent in Minnesota, but as she grew worse, her parents brought her back to this city. Since April she has been under constant which the administrator has of the disease. We have now a very good report of the virulent epidemic of this malady, which occurred some time since in Vienna. Although it is from the pen of Von Beck, a man who figures prominently among the partisans of the constitutional nature of diphtheria, we find that he depended greatly upon the local treatment. Neurine, of which I show you a sample, is an organic caustic, stimulating antiseptic, not to be found in stock in this market, and requiring great care and trouble in its manufacture. The only formula which I could find for it was in the very complete German chemical library of Mr. Lenham, Mr. Frank's assistant, who kindly prepared what I am exhibiting. Now, Von Beck says, that he lost many patients, as he could not obtain sufficiently large quantities of this material. It is applied to the pharynx, in the strength of 1-200 of water in bad cases, and of 1-400 in the mild ones.

Thymol is likewise recommended for its therapeutic, antiseptic properties. It is soluble in alcohol and ether. It was first introduced by Morel McKenzie for the treatment of chronic dry catarrh, and has been lately reported as having been successfully employed in diphtheria.

Dr. Connor—Dr. Shurly's remarks have interested me, as I have but lately examined the report of a health officer, of twenty years' experience, whose district covered a large portion of Northern England. He has examined particularly the origin of epidemics of diphtheria, and states as his conclusions that what typhus and typhoid are to large cities diphtheria is to the country districts. The dwellings where the first cases originated were invariably very damp ones. So that his report in this respect resembles that of Dr. Bowditch's for phthisis.

PATHOLOGICAL SPECIMENS.

Dr. Connor—A few days since a man presented himself at the college clinic, who related the following history: Many years ago he had an attack of scarlatina, which was followed by an inflammation of the middle ear. The discharge continued for a long time, and gradually the meatus filled up with a growth, which at the moment was plainly to be seen. It proved to be an ordinary polyp, which I removed in the usual way. During the operation I found this stick lying anterior to the growth and passing through the perforated drum. Questioning him as to how it got there, he told us that fifteen to twenty years ago, on account of very troublesome itching in the meatus, he was accustomed to scratch his ear with a match. As he had never done so since, the piece of stick has probably been there all that time. The stick was something more than half the length of an ordinary match.

Dr. Connor exhibited a specimen of Pond's sphymograph, and made several tracings with the machine.

Dr. Johnson asked if any member had had any successful experience with ingluvin in the vomiting of pregnant women. In his hands it had proved perfectly useless, and as it would not dissolve after following out the printed directions, he believed it to consist simply of ground up chicken gizzards, and to be a complete fraud.

The question of the efficacy of firwein having been raised, Dr. Inglis replied that he believed it to be a good article, from the experience which he had had with it in his own case. But much larger doses must be taken than those indicated on the bottle, for no effect is apparently produced until the system seems perfectly saturated with the remedy.

PREVAILING DISEASES.

Dr. Shurly spoke of a case of scarlet fever where hematemesis had taken place to such a degree that death would probably ensue. It was a question whether the erosion was in the lower pharynx or in the stomach proper.

Dr. Carstens—I wish to add a few words to the case of supposed thyroid dislocation reported at the last meeting. Two days after the leg resumed its normal length; but Sunday night the pain recommenced, and the leg began again to stretch, and to-day it is again one and one-half inches longer than its fellow.

Dr. Noyes—A few days since a man came to me complaining that he saw double. On examining him I found that he could neither roll his left eye up or down. He stated that after lying upon the ground to rest himself, after some hard work, he found on arising that he was very dizzy and staggered. I turned the case over to Dr. Robertson.

Dr. Robertson—After the second day the dizziness disappeared, the paralysis of the recti was almost overcome, and the anaesthesia of both hands diminished. Sunday, on projecting his tongue, I saw that it deviated to the right. His memory has failed him considerably, and he is not able to complete his sentences. Both eyes are now affected, as he still cannot roll them upwards.

I saw another case of paralysis in the same week. Here also the tongue deviated to the right, and the iris was perfectly inactive. These symptoms had continued for two years.

Dr. Yemans—The following case of insanity was, I believe, due to tuberculosis of the brain. Mr. C., pilot, was the victim of an explosion of a lake steamer, six years ago. Considerable spinal trouble ensued, and he was confined to bed for several months on occount of paralysis. Shortly after he commenced to go about kleptomania developed itself whenever he partook of any liquor whatever. He was several times arrested. At one of his trials I testified before the jury to his insanity. The case was turned over to the Recorder's Court, but was here thrown out, and he was sent to the House of Correction for one year. Whilst there phthisis appeared, and he was discharged in April. Dr. Shurly attended him at his death from phthisis.

Dr. Shurly—From my examination, I certainly believe that the spinal trouble had nothing to do with his insanity.

Dr. Shurly—Saturday I attended upon a lady who had a quick labor of about an hour's duration. Sunday I found her with a fever of 105½°, a well marked eruption of scarlatina and slight sore throat. Saturday morning she died comatose. It is strange that no mention is made of this complication in the puerperal state in any works which I have at hand.

On motion, the meeting adjourned.

E. A. CHAPOTON,
Secretary.

Michigan State Board of Health.

The regular quarterly meeting was held in the office of the secretary of state at Lansing, Tuesday, October 8th, all the members being present as follows: R. C. Kedzie, M. D., President, of Lansing; H. O. Hitchcock, M. D., of Kalamazoo; Henry F. Lyster, M. D., of Detroit; Hon. LeRoy Parker, of Flint; Rev. D. C. Jacokes, of Pontiac, and Henry B. Baker, Secretary, of Lansing.

VENTILATION.

Rev. D. C. Jacokes, committee on buildings, heating, ventilation, etc., mentioned experiments in progress with regard to a plan of ventilation applicable to houses already built, on which he should be able to report at the next meeting. He had given illustrated lectures in a town in this State, and secured the construction of a chimney with ventilating flue, as recommended by Dr. Kedzie in the first annual report of the board, in a church where patent ventilating machines had failed; and the same plan would also be tried in private houses in that town. In this way he hoped to secure practical methods of ventilation "for the million." He had visited a house so constructed and shaded that scarcely a ray of direct sunlight could enter, and in which seven of eight children had died. He had visited, by authority of the board, several large ecclesiastical gatherings and spoken on subjects connected with the work of this board, and through them had distributed important documents to all parts of the State.

CLIMATE AND LONGEVITY.

Dr. Lyster, committee on climate, presented the introduction of a paper on the topography and climate of Michigan, illustrated with diagrams showing isothermal lines, rain-fall, elevation of localities, distribution of woodland, frequency of storms, etc. It is to be completed for publication in the annual report.

CORONERS' JURIES.

Hon. LeRoy Parker, committee on legislation for public health, read a paper on coroners and coroners' juries, showing the former dignity of the office of coroner, and stating that the jury were originally summoned principally as witnesses. He traced the system of coroners' juries, showing the origin of some abuses and the extent to which the system has been degraded, and clearly exhibited the need for expert medical ability on the part of the coroner in tracing to their causes deaths from violence and accident, and for expert legal ability in dealing with cases of homicide, suicide and murder. He recommended that the coroner's jury as now constituted be abolished, as has already been done in Massachusetts; and that efforts be made to secure as coroners men of expert medical and legal ability. He stated that the system now in force in Massachusetts was considered far superior to the old system. Dr. Lyster spoke of some of the evils of the present system, and the importance and need of the proposed reform.

Dr. Baker read a report of public health subjects in the proceedings of the Michigan State Medical Society, at its meeting in Lansing, in May last, which was ordered published in the annual report.

SECRETARY'S REPORTS.

The secretary reported further correspondence relative to the sanitary convention proposed to be held at Coldwater, in February, 1879; also, correspondence with makers of sanitary appliances, relative to exhibiting their inventions at these conventions. He exhibited Wheeler's disinfector (invented by W. F. Wheeler, 118 South Fourth street, Philadelphia, Pa.), for rendering the water supplied to urinals, water-closets, etc., itself a disinfectant, by means of carbolic soap; also, Houghton's reversible charcoal water-filter, designed to be attached to water-pipes at the point of delivery, which had been obtained for the same purpose from the agent, E. C. Houghton, 75 Devonshire street, Boston. The secretary presented the usual report of

WORK IN THE OFFICE

during the last quarter. Circulars have been sent to the clerks of cities and villages who have not made the return of health officers, as required by law; copies of the vital statistics of Michigan and of the last report of the State Board of Health have been distributed to sanitarians, sanitary exchanges of the board, and others engaged in sanitary work in the State; 20,000 copies of the document on restriction and prevention of diphtheria have been printed and are being distributed; replies of correspondents relative to diseases of 1877 have been compiled for the annual report; other manuscripts have been prepared for the report of the board for 1878, and the president's address and a few other articles have been printed. The annual inventory of property purchased, issued, used and on hand has been made. The meteorological registers supplied by the observers of the board for the year 1877 have been compiled as a basis for an article on the "principal meteorological conditions of the year." The report concerning the property of the board showed an addition to the library by gift, exchange or purchase, of 258 volumes, mostly bound.

A motion was passed directing a complete set of meteorological observations to be taken in the office of the secretary.

A motion was also passed directing that the document upon the restriction and prevention of diphtheria, recently issued by the Board, be electrotyped for use by local boards of health, and others interested in the restriction of the disease.

DENTISTRY.

Dr. Lyster presented a communication from a dentist of Detroit, relative to the preservation and care of the teeth, which was read and discussed.

OPIUM EATING.

The secretary presented a communication from Dr. O. Marshall, of North Lansing, relative to opium eating and the opium habit, which included a summary of replies by ninety-six prominent physicians in Michigan to a circular of inquiry as to the number of opium and morphine eaters of both sexes in their localities. There were reported from these places, mostly villages and smaller cities, 1,313 habitual eaters of the drug. It also included a statement from the United States treasury department, showing that there have been imported during the twenty-seven years from 1850 to 1877, 5,299,774 pounds of opium, valued at $26,142,085, besides 22,565 ounces of morphine, valued at $73,433 imported during the seventeen years from 1861 to 1877; also showing that the imports for the ten years ending with 1877 exceeded by 2,057,080 pounds, or nearly 200 per cent, the imports for the ten years ending with 1859. In addition it is believed that there has been at least ten per cent of the amount above stated smuggled into the country. The estimates for Michigan based on these replies and the statements of a wholesale drug house in Detroit show the consumption of opium to be very large.

DIPHTHERIA.

The secretary read a communication from Dr. Topping, of Dewitt, based on recent experiences in an epidemic of diphtheria, in which he reversed a former report that he had seen no evidences of the contagiousness of the disease, having lately traced about seventy cases to one first case. Also, two communications from Dr. J. S. Caulkins, of Thornville, relative to the period of incubation in diphtheria, based on a study of nine cases in one family, six of which were fatal, and eight cases in another family, four of which were fatal.

SANITARY SURVEY, ETC.

A resolution was adopted, directing the committee on legistion to prepare a memorial to the legislature in favor of a topographical survey of the whole State for sanitary purposes, to be instituted at once and carried forward to its earliest completion.

Dr. Baker was appointed a committee to confer with the representatives of the American Public Health Association, American Social Science Association, and others, relative to devising some method of uniform registration of births, marriages, and deaths, throughout the United States. After the auditing of bills and a large amount of routine business, the board adjourned to meet January 7, 1879.

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

ON THE ACTION OF INHALED SUBSTANCES.—Dr. M. Schottelius, of Wurzburg, examined the action of dust originated from inorganic and organic substances when inhaled. The next object of his study was to find the differences in the action of substances which do not decompose in the lungs against such as will decompose or which were already decomposed. He observed that non-decomposing dust when inhaled is followed by swollen epithelium of the alveoli. The latter undergoes a kind of slimy metamorphosis, becomes conveyed to the bronchi and is at last expelled from the lungs. Now, when that part of the alveolar wall which lost its epithelium is irritated by dust before new epithelial cells have replaced the old ones, there appear wandering cells seizing the particles and decay partly *in loco* while loaded by them, while their greater number get into the lymph current and attach to the walls of the lymph vessels. At last they become conveyed to the lymph glands. A reactive direct pneumonia does not take place in consequence of the penetration of the dust particles. But if the caliber of the smallest bronchi should be entirely blocked up, a so-called pneumonia retrahens will be the result. A higher grade of inflammation does not take place. As to that kind of inflammation which follows the inhalation of organic dust, it resembles anatomically very much some forms of phthisis, from which it follows that the latter *may be* caused by the inhalation of organic particles. In special cases phthisis may be even acquired by self-infection, caused by decomposed bronchial secretion *in loco*, or by its inhalation and aspiration.—*Virchow's Arch., Vol. 73*, Aug., 1878.

DIPHTHERIA TREATED BY SODIUM SULPHO-CARBOLATE.—Henry P. Wenzel, M. D. (*Virginia Medical Monthly*, June, 1878), reports a series of cases treated wholly or in part by sulpho-carbolate of sodium. In his summary he shows that out of seventeen cases reported, nine of the cases improved on the sulpho-carbolate in doses varying according to the age, from two to twenty grains every two or three hours. Two of the cases were very mild and did not demand active treatment. Two of the cases died of acute blood poisoning, and one case, the doctor somewhat facetiously remarks, died of a newspaper item (swallowed the advertisement, perhaps). Nearly all of the cases suffered from urinary suppression, and were relieved by the sulpho-carbolate, which increased the flow of urine. Too large doses of the sulpho-carbolate caused purgation. Many of these patients lived in filthy, damp places, and had diphtheria in its malignant form. The doctor's conclusions are worthy of note. (1) Diphtheria may be generated by filth *plus* a substance in the air which is at present unknown. (2) Diphtheria is infectious and contagious under certain conditions, and may be transferred indefinitely at indefinite but limited times. (3) Filth increases the malignancy of diphtheria. (4) Diphtheria is not *identical* with croup, but croupous symptoms may present themselves at any time. No case is absolutely safe from sequelæ—especially paralysis and lesions of the kidneys. Malignant cases may succumb before a membrane is developed in the throat. (5) Isolation and cleanliness mitigate its virulence. (6) Stimulation is necessary in severe cases to prevent collapse. (7) Sulpho-carbolate of sodium is a valuable remedy in diphtheria. Probably the drug destroys the microscopic ferment in the blood. (8) Tracheotomy should be performed early. The great death rate is due to the long delays and not to the operation. If it does not save life, it relieves the patient. (9) Local applications are useless. (?) Diphtheria is a contagious constitutional disease presenting general and local symptoms. We make local applications to the throat to satisfy the whims of our patients and their friends. (10) The publication of prescriptions to cure diphtheria, or other dangerous diseases, is reprehensible, of doubtful utility, and fraught with danger. The State boards of health should be the only parties who should recommend tried methods in time of need.

A Few Distinctions Between Yellow Fever and Malarial Fever.—J. W. Compton, M. D. (*Cincinnati Lancet and Clinic*, September 14, 1878), gives these distinctions, among others, between yellow fever and malarial fever. In yellow fever the pain is in the back part of the head and in the spine. In malarial fever the pain is usually in the front part of the brain. In yellow fever the subsidence usually marks the termination of the attack. The subsidence of malarial fever is only a rest, and the fever returns with renewed violence. Periodicity is not a characteristic of yellow fever, but is so of malarial fever. Attacks of yellow fever afford almost entire immunity from future attacks, while attacks of malarial fever increase the tendency to future attacks. The preparations of cinchona have no controlling influence in yellow fever, but have controlling effect in malarial fevers. Black vomit is one of the ordinary occurrences in yellow fever, but almost never occurs in malarial fever. The disease germs of yellow fever are transportable in clothing, goods and other movables, and may be propagated therefrom and communicated. The disease germs of malarial fever cannot be transported in clothing, goods, etc., and the disease is never communicated in this manner. Heat moisture and vegetable decomposition will not always produce yellow fever, though existing in great abundance. Heat moisture and vegetable decomposition will always produce malarial fever where they exist in great abundance. The death rates of the two diseases bear no comparison. Yellow fever kills a large proportion of those attacked, while malarial fever is one of the most easily managed fevers. Yellow fever never rises spontaneously, but malarial fevers rise spontaneously in the regions where they are found. Yellow fever will not exist in a temperature below 70° Fahr., while malarial fevers will occur in quite low temperatures, and the worst cases of malarial fever to manage are those that occur in the winter. Albuminous urine is almost invariably found in yellow fever, but is seldom or never found in malarial fevers. In yellow fever there is great tendency to hemorrhages, while there is no such tendency in malarial fevers. In yellow fever there is no particular tendency to enlargement of the spleen, while in malarial fever the spleen is very frequently enlarged. The stage of incubation after exposure to yellow fever may be as short as two days, in malarial fever it never is as short as two days. The limits of the stage of incubation in yellow fever are from two to sixteen days. In malarial fever the same number of weeks are nearer the truth. Suppression of the secretions, particularly that of the kidneys, is a characteristic of yellow fever, but is not a characteristic of malarial fever. Yellow fever only requires a nidus of a peculiarly vitiated atmosphere, and a sufficiently high temperature for its germs to propagate and spread this fearful plague in places where it had not previously existed. The first cases that occurred in New Orleans this year, were two cases who succeeded in running the quarantine and stopping in a part of the city where numerous lagoons sent forth the foulest of odors, and greatly vitiated the atmosphere in that locality. History will write the result. The opening of an old sewer in Grenada, Mississippi, and the subsequent sorrow of the grief-stricken people, is also a matter of history.

SULPHO-CARBOLATE OF SODIUM IN THE TREATMENT OF YELLOW FEVER.—The *Cincinnati Lancet and Clinic*, speaking of the recent epidemic of yellow fever in the Mississippi valley, says, among other things, that in the epidemic of 1873, sulpho-carbolate of sodium seemed to work admirably, while in the present epidemic it did not seem to do any good unless it possibly kept the black vomit from decomposing, and prevented septicæmia. Contrary to the usual symptoms of yellow fever, many cases this year are distinctly remittent.

HYDATIDS OF THE KIDNEY TREATED BY CARBOLIC ACID.—(A. M. Fauntleroy, M. D., *Virginia Medical Monthly*, July, 1878.)—The annals of medicine have furnished up to date only about sixty-one cases of well-authenticated hydatids of the kidney. The rarity of the cases is not the only reason why they should be considered. The great discomfort they—the hydatids—cause renders their proper and prompt treatment a thing to be greatly desired. In a case that the doctor saw in practice crystallized carbolic acid, in grain doses, made into a pill with powdered licorice root, was given three times daily. The effect was soon apparent. The patient could now void his urine without pain, and whereas the hydatids were formerly voided with considerable pain and difficulty, debris of the hydatids came away with the urine, but no more vesicles. The patient has gained weight and strength under this treatment, and is free from his former pain and discomfort.

Killed the hydatids. (?)

LEAD POISONING TREATED BY THE CHLORIDES. — B. G. McPhail, M. D. (*Virginia Medical Monthly*, July, 1878), recommends the use of a teaspoonful of common salt in a glass of water morning and night as a prophylactic against lead poisoning, and treats his cases of the same by sulphur vapor baths, laxatives and chloride of ammonium—a drachm to two drachms in the twenty-four hours. Asparagus exerts an influence for good and should be given to those who relish it.

MORPHIA HYPODERMICALLY FOR DYSENTERY.—Dr. J. E. Washington (*Nashville Journal of Medicine and Surgery*) says that his experience in the use of morphia for the relief of tenesmus and vomiting in dysentery has been most satisfactory. The doctor tried the hypodermic puncture in several cases, and found that the tormina and tenesmus were promptly relieved, and his personal experience is equally satisfactory, for, having exhausted the usual means for relief of dysentery in his own case, he resorted to a hypodermic injection of morphia and experienced prompt relief.

[This doctor resides in Augusta, Georgia, where dysentery is much more prevalent than here in the north. But the treatment may be of value here if the case is not complicated with malarial toxæmia to such a degree as to counteract the effects of the narcotic.—ED.]

Therapeutics.

OXALATE OF CERIUM AND CAFFEINE AS PREVENTIVES OF THE NAUSEATING EFFECTS OF OPIUM.—S. C. Busey, M. D. (*American Practitioner*, September, 1878), says that for some time past he has been in the habit of combining oxalate of cerium with opium, and has found it efficacious in preventing its nauseating effects—or at least in mitigating them. Citrate of caffeine may also be combined with opium, but both the oxalate of cerium and the citrate of caffeine are only applicable after the occurrence of stomachic disturbances.

ON THE ABSORPTION OF LIME SALTS.—The opinion of physicians concerning the therapeutic effect of lime salts differ widely. Some think that they act only *locally* upon the mucous membranes, the secretions and contents of the intestines, but that they have *no general* action upon the system. Others consider them as powerful remedies in all so-called dyscrasies. These differences in opinion caused the author to experiment with animals, to see if lime salts *enter the system*, and become excreted with the urine. He found that soluble lime salts, when brought into the body, become *absorbed*, though only to a small degree. We may therefore expect that a deficit of lime in the body may be balanced by the introduction of a soluble lime salt in a sufficient quantity, provided the general condition of the body favors a return to the standard. The administration of these salts in the proper diseases seems therefore to be well founded.—*Dr. Perl, in Virchow's Arch.*, Vol. 74, September, 1878.

Pathology.

ON THE CHANGES IN THE CARTILAGE OF THE JOINTS IN CASE OF FUNGUS SYNOVITIS (TUMOR ALBUS) AND CARIES. — Dr. Weichselbaum, of Vienna, confirms the observation that the cartilage cells are involved in the changes brought on by said diseases. They not only increase in number and change to pus cells, but they return to their early state represented by the cells of proliferation. The matrix of the cartilage becomes hereby either consumed by the formation of vacuoli, or it is split. The metamorphosis of the cartilage cells begins in case of fungus synovitis, always at the margin of the cartilage, and progresses in a definite direction. It is no general one, and is even wanting in the lower strata of the cartilage in cases of caries.— *Virchow's Arch.*, Vol. 73, Aug., 1878.

New Observations on Mycosis in Man.—Dr. J. Israel, of Berlin, attended several patients whose lives were finally destroyed by the growth of micro-organisms (fungi). A careful study of said cases led him to the following conclusions:

1. The growth and proliferation of fungi in living men is evident.

2. There is a close relation between the growth of the micro-organism and the inflammation in the attacked organs by metastasis.

3. In the latter the inflammation is always preceded by a settling of the fungi.

4. The generators of disease are attached to the fungi.

5. The fungi are not the generators of disease, for,

6. Like fungi are found in different diseases, and,

7. Like diseases may be brought on by the coöperation of different fungi.

8. Different fungi can fix the like generators of disease, and like fungi can fix the generators of different diseases.— *Virchow's Arch.*, Vol. 74, Sept., 1878.

Gynecology.

The Pith of Dried Corn Stalk as a Uterine Tent.— W. T. Goldsmith, M. D. (*Southern Medical Record*, September 20th, 1878), says that he has used the dried pith of the corn stalk as a uterine tent for the last seven years, and finds them (the tents) to possess decided advantages over sponge tents. During the seven years the doctor has used these tents he has not had a single accident attributable to their use.

The tents are easily shaped of the proper size to which the dilatation is to be carried, and then the tent can easily be compressed to one-fifth its original size. The tent can be inserted without exposure of the patient, but not so readily.

Among the advantages of the corn-pith tent are the following:

It dilates effectually, but not too rapidly.

It is smooth, soft, and can be removed without force.

It produces no lacerations, abrasions, or irritation of the mucous membrane.

It can be medicated with any substance as easily as the sponge or cloth tent.

It is of vegetable origin, and hence does not become putrid and poisonous to the patient.

It may be retained non-compressed for days without injurious results, if no pain occurs.

A number of small tents, filling up the cervical canal, may be used for more rapid expansion.

It can be prepared in a few minutes, of any desired curve, size and length.

Any degree of compression may be given to it, or it may be used without compression.

It may be perforated like the sea-tangle, and its power of absorption increased by pricking its surface.

It will not break upon introduction in the cervical canal, and can be bent without breaking on removal.

Ophthalmology.

GLAUCOMA—ITS PATHOLOGY. — Prof. Del Monte (*London Medical Record*, October 15, 1878) describes the appearances found in a glaucomatous right eye, removed from a lady aged 65. She had undergone iridectomy in the left eye, on account of commencing glaucoma, and the right eye was removed in consequence of persistence of pain in it. After the eye had been preserved twenty days in alcohol, the following appearances were observed. The ciliary processes were very small, their tissue having a fibrous aspect, with scattered cellular elements, and above their pigment the ciliary portion of the retina was observed to be adherent. The ciliary muscle was very slender; there was no trace of the canal of Schlemm, and the iris was adherent for a considerable extent to the inner surface of the cornea. On the anterior surface of the iris a small streak of newly formed connective tissue was observed. Attention was directed to a layer of connective tissue interposed between the epithelium and Bowman's membrane. The latter had disappeared from part of the periphery of the cornea, leaving only the connective tissue. The belief was expressed that the increase of intra-ocular pressure is not due to accumulation of aqueous humor or of fluids which should escape from the eye, since clinical experience proves that the occlusion of the channels of diffusion proceeds *pari passu* with a diminution in the production of the fluids. The slow reformation of the anterior chamber after iridectomy sufficiently proved this. From an anatomo-pathological point of view the author believes it demonstrates that in glaucoma there is a slow process of sclerosis of the anterior uveal tract and of the cornea; and this can only be the result of stasis, as in analogous lesions of other parts of the body. This stasis is in the lymphatics rather than in the blood-vessels, since in cases of vaso-motor paralysis, in which there is retarded circulation, the intra-ocular pressure is diminished rather than increased.

MYOPIA—A NEW THEORY.—Dr. D. Hunt (*Boston Medical Journal*, October 24, 1878) presents a new theory regarding myopia. From various anatomical facts he believes that the form of the myopic eye is caused by increased growth of the brain tissue which forms the optic vesicle. This increased growth is produced by causes similar to those that have effected the enlargement of the cerebral vesicles. The type of ciliary muscle characterizing myopic eyes is a production of the same agencies that effect the elongation of the globe; sclerotic and ciliary muscles form from the same layer of embryonic connective tissue, and at the same date. The separation of the sheaths of the optic nerve represents an embryonic enlargement of the head of the optic nerve, also caused by the increased growth of the layer composing the optic vesicle. Posterior staphyloma is the result principally of an increased growth of the embryonic ganglion of the fifth nerve. This ganglion and the optic vesicle enlarge at the expense of the layer of connective tissue situated between them. The posterior portion of the temporal half of the eye is developed in this layer of connective tissue. The augmented growth of the ganglion of the fifth pair, which is the principal agent in the causation of posterior staphyloma, encroaches directly upon the connective tissue forming the root of the first branchial arch. This results in a decrease of the protuberance of the maxillary structures formed from this arch.

Laryngology.

INTRA-LARYNGEAL GROWTHS.—Clinton Wagner, M. D. (*Ohio Medical and Surgical Journal*, August, 1878), reports fourteen cases of intra-laryngeal growths on which he has operated. As these are only typical cases, they are not intended to represent the amount of practice, but rather to serve as an argument to convince the skeptical that these tumors may and should be removed by the natural opening into the larynx, *i. e.*, the opening behind the epiglottis, or, as the author has it, *per vias naturales.*

The cases reported are eight papillomatous growths, two of fibroma, one enchondrosis, one cyst on the epiglottis, and two of cancer. The papillomata were removed by evulsion, as was also one fibroma; while a symmetrical fibroid growth of the vocal cords in one case was treated with chloride of zinc and made to disappear. The enchondrosis could not be removed on account of its hardness, and because the attempted removal brought on violent fits of coughing, notwithstanding the administration of ether. Of course any surgical interference with cancer is generally undertaken to prolong life rather than to effect a permanent cure. The removal of the papillomatous growths is considered a successful operation, and one that is safe to perform.

J. H. Hartman, M. D. (*Virg. Medical Monthly*, June, 1878), account—friends are found to inspire the wife with disgust for a large family. Children are a nuisance before they are born—after birth nature compels a mother's love.

True, an inconsiderate increase of the family may be an evil, as no one will deny, but it is nothing compared with the results of calculation and unnatural restraint. What if the natural love of the mother be supplanted by hatred? Will not the offspring be pretty sure to have a weakly frame and feeble mind?

There can be but little question that unwilling conception and detested gestation have oftentimes marred the offspring, and that the sin of the parents has been visited on the children in the Protean forms of sickness and pain of body, feebleness of mind and utter destitution of moral sense. Furthermore, this aversion to offspring must inevitably result in a degradation of national character, physically, intellectually and morally.

Whatever deters from marriage tends to licentiousness, prostitution and feticide. It is, therefore, better to promote marriage—always, of course, presuming on the mutual affection of the contracting parties.

The literature of feticide in the newspapers is one great bane to the common weal of married life. The advertisements of those who pursue this nefarious traffic are found in a large majority of the newspapers. It is a great pity that such papers can not be kept out of the homes and families of our people. Let those who are tempted to interfere with nature's grand designs take heed lest they bring upon themselves the just retributions which are often visited on those who trample under foot the laws of their being.

Surgery.

EXTENSIVE LACERATED WOUNDS OF THE ABDOMEN IN A PREGNANT FEMALE.—L. Corey, M. D. (*American Practitioner*, Sept., 1878), reports the case of a woman who received from a vicious cow a wound in the abdomen, near the hypogastric region, the wound causing the intestines to escape from the abdomen.

The abdomen was penetrated one and one-half inches to the right of the median line, just above the pubic bone, making a ragged rent in the abdominal walls, obliquely to the left and upward, terminating an inch to the left of and as high as the umbilicus—a wound at least five inches long, through which the great omentum, the ascending, transverse, and descending colon and most of the small intestines had escaped, and the pyloric end of the stomach had protruded.

After a long delay, the patient was brought under the influence of an anæsthetic, the abdominal wound enlarged, the extruded viscera returned to their places as nearly as possible, and the abdominal wound sewed up.

Strange to tell, the patient recovered without any serious illness, and two hundred and two days after the receipt of the injury, the patient gave birth to a well-developed female child at full term.

C. Cushing, M. D. (*Pacific Medical and Surgical Journal*, August, 1878), deduces from Spencer Wells's lectures on ovariotomy the following conclusions : First, that a certain portion of the cases recover after tapping, therefore give the patient the benefit of the operation first. Second, that the more extensive the incision in the abdominal wall the greater the mortality. Third, count the sponges and forceps before you begin the operation, and see that you have them all before the abdomen is closed. Fourth, use the antiseptic spray while operating, and the antiseptic gauze as a dressing to the wound. Fifth, use the bichloride of methylene as the anæsthetic. It is safer than chloroform and is pleasanter and acts more rapidly than ether.

To Prevent Surgical Shock.—Dr. Hunter McGuire (*Virg. Medical Monthly*, Aug., 1878) states that he has found that quinine to cinchonism prevents shock to those who suffer amputation or other surgical operation. In one case, a gentleman who was injured suffered amputation two hours after the injury and showed no appreciable shock. He had taken fifteen grains of quinine the day of the injury.

REMOVAL OF THE LOWER PORTION OF THE LEFT LUNG—RECOVERY.—Fordyce Grinnell, M. D., physician to Wichita agency, Indian Territory (*Cincinnati Lancet and Clinic*, September 14th, 1878), reports the removal by himself of the lower portion of the left lung of an Indian boy eight years old who had been wounded by a barbed arrow, and had pulled out this portion of the lung when he pulled out the arrow. The arrow penetrated between the fifth and sixth ribs, just to the left of the median line. Twenty-four hours after the injury, the doctor saw the case. Meanwhile the "medicine man" near at hand had failed to cause the lung to return by his enchantments. When the doctor arrived, the protruded portion of lung was congested and fast becoming gangrenous. The extended portion of lung was ligated and removed; the cut surface was touched with perchloride of iron and returned within the small opening made by the arrow. The portion of the lung removed was four and one-half inches long and two and three-fourths inches broad at its widest part. Some degree of suppuration took place, and two weeks after the ligature came away with a quantity of pus. The boy has steadily improved since the ligature came away, and is now beginning to resume his wonted sports.

ANTISEPTIC PROPERTIES OF TAR WATER.—Thos. R. Wright, M. D. (*Southern Medical Record*, September 20th, 1878), writes that tar water made in the usual way by pouring boiling water over pine tar, is a very good antiseptic, and will immediately deodorize any stinking pus on which it may be poured. It readily stops the sloughing of hospital gangrene, and consequently stops the pain coincident to the sloughing. Its antiseptic properties are due to certain compounds found in the tar, especially pyroligneous acid and creasote.

CONGENITAL DISLOCATIONS OF THE FEMURS have been known since the time of Hippocrates—(*Virchow's Archives, Vol. 74*, September, 1878).—Though our text-books on surgery declare them to be by no means of rare occurrence, Dr. P. Gradwitz, of Berlin, states that: (1) The deformities caused by them are rarely so visible that they may be recognized in newly-born children, especially when both joints are affected. (2) Those cases in which anatomical researches were made were those in which the congenital disease, existing for years, had produced a number of secondary changes. (3) Cases in which the dislocation was found soon after birth by *post-mortem* examination, were commonly combined with other malformations, making it thus impossible to recognize the true history of them. By twelve cases of congenital dislocation of the femur examined by the doctor, he proves that the cause of it is an interception in the formation of the Y-shaped piece, while no interception of growth took place with the head of the femur. In case there took place an interception of growth with the head of the femur as well as of the acetabulum, the development of both is kept back so that no luxation occurs. Traces of intra-uterine inflammation of joints were not found in the doctor's cases.

Physiology.

RED BLOOD CORPUSCLES—THEIR ORIGIN.—The "elementary corpuscles" of the blood were first noticed by Donne in 1804. Zimmerman admirably describes them in 1846, and recently M. Hayem has brought them forward as germs of the red blood corpuscles. M. Pouchet (*London Medical Record*, August 15, 1878) believes that by experiment he has demonstrated this function. He also believes that certain elliptical bodies larger than real blood corpuscles, constantly found and until lately regarded as pathological, are intermediate forms between elementary and red blood corpuscles. Elementary corpuscles are probably derived from leucocytes by a cell mechanism analogous to that by which the polar globules are expelled from the yolk.

The experiments supporting this theory are, first, they have throughout their growth the same reactions with coloring matter as leucocytes have, and secondly, in ovipara leucocytes fix hæmoglobin at the expense of the surrounding serum, and in mammalia they show the same tendency; so then "elementary corpuscles" will act similarly if indeed they are really, as it were, outcast from the bodies of leucocytes.

It is supported by the mode of development of leucocytes themselves, which being at first small and enucleated, come at last by a process similar to the cleavage of the yolk about the time of the extrusion of the polar globules, to have with increased size, first two and then four nuclei.

In his experiments, M. Pouchet placed part of the mesentery of a rabbit beneath the microscope and compressed lightly a mesenteric vein. Soon leucocytes were observed to attach themselves to the vascular walls in groups along with masses of elementary corpuscles; in such circumstances he frequently found that the adherent already contained a considerable quantity of hæmoglobin. Without doubt it might be objected that these corpuscles are always free when in circulation, and become agglutinated to the leucocytes as may happen to the latter between themselves under various conditions. Still everything seems to indicate that it is not so, but that these corpuscles are direct rejections or emanations from the contractile bodies of the leucocytes.

ALCOHOLIC DRINKS—AS DIET, AS MEDICINE, AND AS POISONS. —Alfred Carpenter, M. D. (*British Medical Journal*, May 18th, 1878), in the annual lecture before the Medical Society of London, discussed at length alcohol under the above divided caption. He concludes that "alcohol in any of its forms may be a good medicine, but is a bad diet" at all times, and "that its action as a poison is visible among all ranks of society." It is our duty as medical men to advise our patients accordingly.

DALTONISM.—Dr. B. Joy Jeffries (*Boston Medical and Surg. Journal*, July 25th, 1878) reports the results of his investigations in Daltonism upon males and females as follows: In the Institute of Technology in Boston, in Harvard, and Brown

Universities, and Amherst College, he tested 1,021 students and instructors, finding 46 color blind, or about 1 in 22.

In Wellesley College one female was color blind in 302 examined. In the girls' normal school, Boston, 84 examined, being all, and none color blind; their ages 18 to 22 years. In the girls' high school, 594, being all, none color blind; ages 14 to 20. Exeter Street school, all girls, numbering 90, none color blind; ages 8 to 16 years. Thus but one was found to be color blind in 1,025 females—quite a contrast from the males, who were found to be deficient in chromatic sense in the proportion of 1 to 22.

DALTONISM.—(*Boston Journal of Chemistry.*)—Messrs. Delbœuf and Spring, the former of whom is color blind, have communicated to the Belgian Academy some interesting researches in Daltonism. Helmholtz believed that in persons thus affected one of the three nervous elements which, according to Young, exist at each point of the retina, and which, when excited, separately give the sensations of red, green and violet, is partially paralyzed; hence the sensation of the corresponding color (usually red) is wanting. Now, M. Delbœuf obtained some curious effects by looking through a fuchsine (red) solution, contained between two slips of glass. The colors he had before confounded showed marked differences. The tint and tone of blue and brown remained intact; violet, and still more, red, acquired a brightness unknown to Daltonians, and scarlet became dazzling. The solar spectrum looked quite different from usual. On the other hand, a solution of chloride of nickel interposed between objects and the eye of non-Daltonians produced the same confusion as that experienced by Daltonians in the natural light. A plate of tourmaline produced the same effect. Fuchsine again opposes and destroys the effect of the chloride of nickel, so that a non-Daltonian caused by the chloride of nickel to confuse colors, ceased to do so when looking also through the fuchsine.

The conclusion is, that Daltonism in all its forms, may be considered as an exaggeration—exceptional, to be sure—of a peculiarity found in all eyes to a certain degree.

M. Jaral has turned the discovery to practical account by a contrivance intended to remedy color blindness. This is simply a thin layer of gelatine colored with fuchsine, and placed between two glasses. Looking through this the Daltonian, it is said, sees colors as they should be. This experiment is easily tried, and is commended to those who suffer from this fault of vision.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

Percentage on Prescriptions.

The Detroit *Evening Telegraph*, in its issues of the 16th and 17th ult., has a couple of articles purporting to be a series of interviews with a number of physicians and druggists of this city, as to the prevalence of physicians receiving and druggists granting a percentage on prescriptions. It is made to appear that the custom is quite prevalent, and, to borrow the words of the interviewer, that it is "a crying evil of our modern prescription system."

Nearly all the gentlemen interviewed were quite sure that it is "a common practice," but assert that their own skirts are clear, at any rate. One "genial physician," as he is termed by the reporter, who seems to know the ropes well, and who is virtuously indignant in the matter, gave a very particular description of the different methods in which the druggists pay their "whack up." He displays such intimate acquaintance with the subject, indeed, that one is led to wonder at the source of his information. But he is evidently a gentleman of exact knowledge, as, in illustration of the extent to which this reprehensible custom might prevail, he informed the interviewer that a certain young druggist beginning business, whom he had recommended his patients to trade with, *who lived in that neighborhood*, "in the course of two years received and filled 5,636 of his prescriptions, besides renewals which swelled the total figures to 7,044 in two years"—a very good *neighborhood trade* for the young druggist, we must admit; and the report is quite creditable to the doctor's exactness in keeping track of his prescriptions, "besides renewals."

There is no doubt a grain of truth in the complaint charged. In fact it is well known that a few disreputable men in the profession do accept a bonus on their prescriptions. In one case of which we have positive knowledge, $300 a year is paid to a certain physician for his prescription trade, and this sum, we have reason to know, the druggist charges up on his prescriptions. These men, however, are exceptions to the rule, and we most emphatically deny that this dishonest custom is countenanced by the profession of Detroit generally.

There is no doubt that physicians generally have their favorite druggist, to whom they send their business as far as practicable, but this is done wholly in the interests of their patients, since it is well known to them how few druggists there are in the city who are competent and trustworthy.

The *Evening Telegraph* may have done some good in stirring this matter up; we know, certainly, that it has engendered feelings of distrust and jealousy in the mind of the average citizen which has hedged in the doctor's path with difficulties oftentimes, when, in the performance of his duty to his patient, he has desired to send him where the drugs he prescribed would be honestly and skillfully dispensed. But there is one way in which the *Evening Telegraph* can make amends to the profession for whatever inconvenience it may have caused it in this respect, and that is by using its influence, when the time comes, in strengthening the hands of those who desire legislation which will compel the druggist to be an educated man in his profession, which will put an end, at any rate, to the dispensing of drugs by lads who are barely out of leading strings.

H. A. C.

Memoranda.

St. Clair county, Ill., yearly yields 300,000 gallons of castor oil.

The *Ohio Medical and Surgical Recorder* has been discontinued.

From January 1 to August 1, 1878, 68,618 pounds of opium were entered at the port of New York.

It is said that one grain of quinine in an ounce of milk scarcely reveals its characteristic bitterness.

Dr. Fordyce Barker has resigned his position as one of the surgeons of the Woman's Hospital of New York.

A correspondent of the *Chicago Medical Journal* states that all the patients Dr. J. Marion Sims operated on while in Vienna died within ten days of peritonitis.

A peasant died recently in Kurhessen, at the age of 148. His descendants number two sons, sixteen grandchildren, and forty-three grown-up great grandchildren.

John Hilton, F. R. C. S., F. R. S., the well-known London surgeon, died October 14, aged 74. Lectures on various surgical subjects and papers in the medical journals have for many years rendered his work familiar to the profession.

Dr. Wm. S. Edgar, late editor of the *St. Louis Medical Journal,* died recently. We well remember his genial face and the clear incisive paper which he presented at the meeting of American medical editors held in Detroit in 1874. The cause of his death was organic disease of the heart.

That diseases were caused by animalculæ in the blood and tissues of the body was a prevailing belief during the seventeenth century. Very like to this is the prevailing view at the present day. Substitute for animalculæ, germs, and we have the basis of the germ theory of disease now so widely accepted.

In the city of Lansing, Mich., the death rate per annum in 1,000 for August was 5.93; for September, 10.97.

At its annual meeting in October last, the Detroit Medical and Library Association elected Dr. E. L. Shurly, President; Dr. H. F. Warner, Vice-President; Dr. F. D. Porter, Secretary; Dr. A. M. Hawes, Treasurer; Dr. D. O. Farrand, member of the Advisory Council; Dr. Ed. Lichty, member of the Library Committee; Dr. T. N. Reynolds, member of the Publishing Committee.

As now understood (leaving Edison's unpublished discoveries out of the account), electricity produces light (1) by the voltaic arc; (2) by the incandescence of a conductor offering considerable resistance to the current; (3) by the passage of a spark in air; (4) by the passage of a spark in partial vacuum. Which, if either, is employed by Edison in his new discovery, is not known.

In a test case, Judge Williams, of Chicago, has decided that the Illinois State Board of Health can revoke any license to practice medicine that it may have issued. A license to practice is neither a constitutional privilege, or property or contract. The right to practice medicine was not descendible from its possessor to his heir; could not be bought or sold; and might be lost by misconduct or immorality on the part of the practitioner. It was merely a statutory privilege.

Dr. Piffard, in *New York Medical Journal*, gives a convenient substitute for Fehling's solution: "Take of sulphate of copper, one part; crystallized tartrate of soda and potassi, five parts; sodic hydrate, C. P., two parts. Mix *thoroughly* in a mortar. The resultant pasty mass can be kept in a wide-mouthed bottle until wanted. To use take a piece about as large as a two-grain pill, put it into a test tube and add about two fluid drachms of water. Boil till the mass is dissolved, and the solution has a uniform dirty blue color. Then add two or three drops of the suspected fluid and boil again. If sugar be present, the usual reaction will be present.

The *British Medical Journal* states that Mr. Callender, F. R. S., the surgeon of St. Bartholomew's Hospital, will visit America in December, to examine the surgical institutions and practice of the United States.

Mr. Wheelhouse, in his address on surgery before the British Medical Association, re-affirms Jones's laws respecting the ligature established by exhaustive experimental research in 1805, viz.: "The only safe way of securing an artery is fairly to divide the inner and middle coats of the vessels, and that the only ligature to be trusted to do this efficiently is a well made, firmly twisted, round cord of silk. Elastic threads, after dividing the coats, if they do so at all, lose their elasticity, yield when they should hold on firmly, and thus permit the efflux of blood. Catgut softens too readily, hurts or slips, and is thus unsafe. Silk ligatures when cut off at both ends fail to become absorbed, and become prolific sources of after mischief. Horse-hair fails not only to be absorbed, but acts as a source of direct irritation from first to last."

The profession in England is greatly exercised on the subject of fees. A physician in the *British Medical Journal* relates his experience on one occasion, as follows: "While visiting at Hamburg, he was troubled with a slight inflammation of one of his eyes. He consulted a German confrére. The German was cordial. The frequency with which he addressed his patient as 'my colleague,' was touching. At the close of the first consultation, he observed, 'Ah, my colleague, I will give you some medicine.' At the second visit he inquired of his colleague if the medicine did not make him 'transpire.' But at the third and last visit, his generosity reached its culminating point; for the London physician, having apologized for taking up the time of his German 'colleague,' offered a fee. 'Ah,' replied the German, 'you are my colleague, so I will take only five sovereigns.' " The sovereigns were paid, and our English physician departed from Hamburg more puzzled than ever on the question of medical fees, to say nothing of medical etiquette.

Dr. Murchison (*British Medical Journal*), from an extended experience divides the incubation of eruptive fevers into two classes—one class with a long period of incubation, as variola, varicella, measles, typhus, enteric, relapsing fever and mumps; and another class with short incubative period, as erysipelas, diphtheria, denague, and scarlet fever. In scarlet fever he finds the period of incubation to be not to exceed one week. His rule is that after exposure to scarlatina infection a person need be quarantined only a week if no symptoms of the disease manifest themselves.

The sixth annual meeting of the American Public Health Association will be held in Richmond, Va., 19th and 22d November next. Every effort will be made to facilitate the best work of the gathering. The scope of the meeting may be inferred from the following official order of business:

Reception of report of the commission investigating the history of the epidemic of yellow fever, submitted by Dr. J. M. Woodworth, Surgeon-General of U. S. Marine Hospital Service.

Reception of the other reports and records of this epidemic —from all sources.

Reception of other reports and communications on the epidemics and sanitary experience of the present year.

Announcement of the contributions of information and the presentation of communications from members of the association, State boards of health, municipal sanitary officers, and others.

The reading and discussion of the reports and papers will follow in the above order. It is believed that the first two or three days of the meeting will be devoted to deliberations upon the report and body of evidence which the yellow fever commission under the Surgeon-General of the Marine Hospital Service will submit.

This meeting will be regarded with the greatest interest.

every page. Much space is wasted in useless explanations and disquisitions.

We do not think it an exaggeration to say that all the matter of this book could be clearly told in at most half the number of pages. The authors have let their enthusiasm warp their judgment into supposing that random and side issues are of interest in such a book to the profession at large. Still, as it stands, it is the most complete work on the subject, and the best.

POCKET THERAPEUTICS AND DOSE BOOK. By Morse Stewart, Jr., B. A., M. D. Cloth; pages 100. Price 50 cents. Detroit, Mich.: Emil Schober. 1878.

This little pocket companion gives a classification and explanation of the action of medicines, index of diseases, with appropriate remedies, classification of symptoms, poisons and their antidotes. All the author intends is to catalogue the above facts in a form convenient to carry in the pocket. This he has done, and in so far the book is a success. Different compilers have different ideas as to what should enter into such a book, so that our author has the right to make his own selection. Were we to prepare a book of similar scope, we should adopt an arrangement very materially different in many respects, but then we might not suit medical students any better than the authors of this and other dose books. We regret, however, that by the side of the usual doses their equivalent in metric weights, etc., have not been placed. Doubtless this improvement will be made in the next edition. It is well and conveniently gotten up, and will doubtless have a large sale, especially if the author brings in play his business tact.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. By James Tyson, M. D. Second edition. Cloth; pages 107. Philadelphia: Lindsay & Blakiston. 1878.

This is one of the best works on the practical examination of the urine. The edition before us contains all the latest facts bearing on this subject. He must be very stupid indeed who, with this as a guide, fails to master this very impo subject. The size and binding of the book especially laboratory service.

THE PLUMBER AND SANITARY ENGINEER. New York: American Publishing Company, 297 Pearl street. Monthly; $1.50 a year; with the *Detroit Lancet*, $4.

The aim of this paper is distinctively to enlighten the public regarding the essentials of house drainage and water supply. It contains matter for all people who live in houses or build them. We know of no paper that covers this ground at all. Intelligent instruction is especially needed in this very class of subjects. Very few houses there are which might not be made far more healthy, while the greater portion are *per se* the constant source of all sorts of physical degeneration and malignant disease. Could we induce each of our readers to take and study this journal, we feel sure that preventative medicine would reap a rich harvest.

A MONOGRAPH ON THE TREATMENT OF DIPHTHERIA BASED ON A NEW ETIOLOGY AND PATHOLOGY. By Dr. Wm. C. Reiter. Cloth; pages 46. Philadelphia: J. B. Lippincott & Co. 1878.

This new pathology is as follows: "Diphtheritis consists in *excess* of *fibrine* in the *blood*. The treatment is calomel in large doses every hour until the intestinal discharges resemble the fresh water polyps in water troughs, gelatinous and of a bright dark green hue." This treatment certainly is not new, and the pathology more than doubtful; nevertheless, the article is worth reading.

ANNUAL REPORT OF THE SUPERVISING SURGEON-GENERAL OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR THE FISCAL YEARS 1876-77. Cloth; pages 213. Government Printing Office, Washington, D. C. 1878.

The financial exhibit of the marine hospital service is especially satisfactory, the surplus of receipts over expenditures being over four thousand dollars. Previous to 1873, for twenty years an average yearly appropriation was made by Congress of over one hundred and eighty-two thousand dollars. The average cost of relieving sailors in 1870 was over thirty-eight dollars, while during the last year it was only about twenty-four dollars. A variety of suggestions are made by the surgeon-general of especial value as it seems to us. He recommends that a hospital be constructed on Bedloe's Island, New York harbor, in which the disabled sailors of that port may receive proper care. Of the statistical portion, we have not space to speak. Among the papers accompanying the volume, the one on the adoption of the metric system of weights and measures, by Oscar Oleberg, Phar. D., is of timely and especial value. It is the best of all the articles that have come to our notice. For practical efficiency, it leaves nothing to be desired. Rules and tables, and finally a posological table renders the task of changing to the new system as easy as it can be made. Dr. Bailhache contributes an interesting paper on the physical examination of seamen. Dr. Walter Wyman makes a very interesting exhibit of the effect of river exposure upon the health of the sailors on our rivers. Then to close the volume, we have several papers describing the yellow fever epidemic at Savannah, Georgia, and Fernandina, Florida. With the recent changes made in the staff of this service, we may hope that it shall still further increase in value to the sailors.

ELEMENTARY QUANTITATIVE ANALYSIS. By Alexander Classen. Translated, with additions, by Edgar F. Smith, A. M., Ph. D., with thirty-six illustrations. Cloth; pages 328. Philadelphia: H. C. Lea. 1878.

Of its kind, we know of no better book than this. In so simple a manner are the facts presented, that it would seem possible for almost any person of average common sense to make such analysis with the proper preliminary training.

TREPHINING THE SKULL IN A CASE OF IDIOCY, WITH REMARKS BY DR. WM. FULLER. Paper; pages 16. Read before the Medico-Chirurgical Society of Montreal.

This case is of interest in many ways, and is reported with much care, the cause of the idiocy being assigned to compression of the brain, due to premature ossification of the cranial bone. The obvious indication was to relieve this compres-

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Original Communications.

Exophthalmic Goitre—A Case, with Explanation of its Phenomena—Successful Removal of Right Lobe of Thyroid Gland by the Knife.

BY WM. FULLER, M. D., GRAND RAPIDS, MICH.,

Late Professor of Anatomy in Bishops College, and formerly Demonstrator of Anatomy in McGill College, Montreal.

About the beginning of March last a case of Grave's disease came under my notice, and though I had seen cases before, yet this was the first that was presented to my immediate attention.

While reflecting upon the causes of this disease and endeavoring to explain the signification of the symptoms, I formed a theory which I think is well supported upon anatomical relations and physiological principles. It is not my intention in this paper to enter into the causes of goitre, but to explain, if possible, the cause and phenomena of this variety in a satisfactory manner. The report of the following case will serve as an illustration: George S. H. is 23 years old, a painter; was a strong, healthy boy up to three years ago, when, from exposure to cold and damp weather, while working at his trade in new and open buildings, in the fall of the year, he was frequently very chilly, and felt the cold chiefly in the legs and feet and in the small of the back. After this exposure, from which he dates his illness, he began to lose his accustomed liveliness of spirits and his previous vigor of health. He tions. He suffered from violent action of the heart, and his eyes had commenced to become prominent upon the accession of these symptoms, in all of which the violence was commensurate with the enlargement of the neck. He was under medical treatment, and during the latter part of last summer he improved, and was, at the time I first saw him, strong enough to do light work.

This history was obtained from the patient, assisted by his mother and brother, persons of rather more than ordinary intelligence.

Upon consulting me, about March 1st, he presented the following condition: Very nervous manner; continually shifting his position or moving some part of his body; scarcely able to speak until after he became acquainted; his voice was of a high, boyish pitch; face pale, with slight leaden hue; eyes very prominent, lusterless, and the veins of the sclerotic conjunctiva and the eyelids were varicose. The lids could not be completely closed, and the eyeballs were frequently rolled, in order to moisten their surface. The cornea was wholly exposed, with about one-eighth of an inch of the sclerotic above. In looking downward, the upper lids did not follow the movement of the eyeballs. The eyes were sensitive to the light, requiring to be shaded from the sun. The eyeballs appeared to be distended, as well as prominent, and he was somewhat short-sighted. The neck was narrow above and broad below, and projected very little forward. A posterior view showed a prominence below on each side. The thyroid gland had a fibrous feel, pulsated slightly, thrilled, and was immovable. The lateral lobes chiefly were enlarged, and extended outward beneath the sterno-mastoid muscles and upward along the side of the larynx as high as the upper border of the thyroid cartilage displacing the carotid sheaths with their contents backward nearly to the anterior border of the trapezius muscle on either side. The lower part of the tumor projected a little beyond the sternum and clavicles, to which it was tightly applied. He states that the tumor is smaller, more firm, and less sensitive than when his symptoms were more urgent. The action of the heart was violent, no hypertrophy, and after repeated trials, at different times, his pulse was 136 and regular. The slightest exertion or excitement caused a tumultuous action. Careful, steady pressure over the gland sent the pulse up to 145, and relief of pressure, by gentle but forcible drawing the tumor forward, caused the pulse to drop to 128. A sour smell, like that of rheumatic fever, emanated from his person. He perspired freely, had a little indigestion, and no diarrhea to speak of.

In endeavoring to explain the symptoms here presented, I shall briefly refer to the anatomy of the neck. The anterior part of the neck contains a conical cavity, broad above, where it is inclosed by the body of the lower jaw, and contracted below, where, at the superior opening of the chest, it is continuous with the mediastinum. This conical space is bounded behind and on the sides by the vertebræ, and the muscles attached to them, and by the sterno-mastoid muscles; in front by the depressors of the larynx, the sterno-mastoids and platisma, with their several fasciæ binding together opposite muscles. The center of this space is occupied by the pharynx, larynx, œsophagus and trachea; and either side by a carotid canal, extending from in front of the ear above to the sterno-clavicular articulation below, uniting in the form of an **U** above the sternum. Here it is applied against, and is continuous with the inverted **∩** formed by the anterior and posterior mediastina. The thyroid gland is situated at the junction below of what I shall call the carotid canals of the neck, which contain the carotid sheaths, arteries and nerves of this region.

As a rule, simple tumors enlarge in the direction which offers the least resistance to growth.

In ordinary goitre, the tumor comes forward, but where the muscles and fasciæ in front offer a strong resistance, the growth takes place in a lateral direction, displacing and interfering with the function of important parts. In three cases which I have examined in reference to this point, it appeared to me that this opinion was justified by the muscular development, and the tension of the fasciæ uniting the muscles to each other in front. The gland in its growth crowded itself upward between the larynx and carotid sheath, which was displaced outward, and was subject to great pressure.

Can the symptoms be accounted for by the pressure thus induced?

1. The cough, stridulus, suffocation and high pitch of the voice by its affecting the recurrent nerve.

2. Indigestion, etc., by pressure on the pneumogastric.

3. Rapid action of the heart is due to paralysis of its inhibitory nerves, and the partial obstruction of the carotid arteries.

4. The obstruction to venous return of blood will account for the congested state of the countenance, the exophthalmia, due to a varicose condition of the veins of the orbit—a situation where their coats receive the least support from surrounding parts; the varicose veins of the conjunctiva and lids; congestion of the tympanic membrane and the choroid, causing the sounds in the ears and the flashes of light; drowsiness and obtuseness of the cerebral functions due to venous meningeal congestion, and probably œdema.

5. The nervous agitation and debility is due to deficient nutrition of the nerve tissue.

6. The perspiration might be the result of debility, or of a rapid circulation in the body. I omitted to take his temperature.

The rapid enlargement at one period of the disease, accompanied by tenderness, would suggest the existence of a subacute inflammation, and the subsequent diminution and consolidation of the tumor, a contraction of the inflammatory products.

The inflammation of the eyes at one time, the cystitis at another, and finally the enlargement of the gland, has the appearance of a metastasis.

The absence of acute pain in glandular swellings is probably due to the small number of sensitive nerves distributed to these organs, which are principally supplied from the sympathetic.

The subsequent improvement in the symptoms resulted from three causes: 1st, the diminution in the size of the gland; 2d, the accommodation of parts to the new conditions; and, 3d, the establishment of other channels for the return of blood and the collateral circulation in the arteries. The tendency of the disease is toward cure, but varicose veins may render some conditions permanent.

The treatment adopted by me in this case was the injection of tinct. iodine ʒ ss into the substance of the gland, on two occasions, about one month apart, followed by 20 drops of the tincture in a wine-glass of water, before meals. The tumor sensibly diminished, and the root of the neck was one and one half inches smaller last May, when I last saw him. He had also much improved in his general health and spirits. I advised him to try electricity, and I have heard since that he is much better.

In connection with enlargement of the thyroid gland, I will place on record a case of successful removal of the right lobe by the knife.

Mrs. B., aged 40 years, a thin, pale woman, of delicate nervous constitution, showed me a tumor about the size of an orange, situated on the right side of the root of the neck. It was quite movable, and was attached to the side of the trachea and lower part of the larynx. It extended outward into the posterior triangle beneath the sterno-mastoid muscle, which passed over about the center of the tumor. The carotid sheath occupied its natural position behind, and the tumor rose and fell in the act of swallowing. She complained of severe neuralgia in the back of the neck, shoulder and head, and a tingling and fatigued sensation in the arm and hand, which prevented her from attending to household duties, and caused restless nights. She earnestly desired its removal, and from its loose attachment, excepting to the parts above mentioned, I thought that there would be no great difficulty in doing so. I however tried four or five injections of iodine into its substance at intervals of eight or ten days, with the effect of increasing its size somewhat, and producing tenderness. As no benefit was derived, in the latter part of April last, I concluded to remove it. I was kindly assisted by Drs. Hingston and Rodgers, of Montreal.

Chloroform was administered, and an incision five inches long was made along the anterior border of the sterno-mastoid down to the end of the sternum. The tumor was reached by a rapid dissection through the depressor muscles, the fibers of which were spread over the tumor and adherent to its capsule, which was strong and difficult to separate from its surface. Scarcely any blood was lost up to this time, but upon tearing the capsule from the upper part of the tumor the superior thyroid artery, which was dilated and brittle, was torn across and gave a lively flow of blood until it was secured, which was not done without some difficulty on account of the profuse hemorrhage.

This done, I proceeded more cautiously by passing an aneurism needle around the tissue and tying it before division, which I did successively with each division of tissue until I reached the pedicle, which was broad, and secured with a waxed thread such as is used by the shoemaker. Little blood was lost after the first spirt, which had convinced me that the tearing off of arteries should be an exception in this operation unless a very rapid removal had been determined upon. A second projection of gland substance was situated beneath the end of the sternum, and was likewise treated.

The chief difficulty in the dissection was the pressure upon the trachea, which interfered with respiration, so that delay was caused by the necessity of occasionally returning the tumor to its situation until that function was restored. The upper part of the wound was brought together by sutures, a sufficient opening being left below for drainage and the ligatures. The operation took place at 2 P. M. The next morning there was considerable swelling of the neck and a blush to the skin, with a slight cough and pain under the sternum. Pulse, 120; temperature, 103°. I immediately removed all the stitches and re-opened the wound to the bottom; much serum escaped at the time and during the day. I gave two drops tr. aconite every two hours. She was much better in the evening. She suffered a great deal of pain in swallowing, which continued for several days. From this time forward, no untoward symptoms occurred, and she was around the house in about ten days. I

closed the wound above with stitches when suppuration was fully established, and the ligatures came away slowly during three or four weeks. There was very little of the scar visible on account of its situation in the groove in front of the muscle.

The removal of the tumor was not as easy as I anticipated from its mobility, and I think that this method is suitable for some cases where removal is determined upon. It is decidedly a difficult and a dangerous operation in the most favorable cases, of which this was one. I think that the principal danger after the operation is from infiltration and consequent cellulitis in the cellular tissue of the mediastinum. Hence the necessity of very free drainage (the wound open throughout its whole extent) until suppuration is fully established, that danger of infiltration may be avoided. A rise in temperature means defective drainage. A large scar may be some objection, but is not to be considered where safety is involved in the question.

Optic Neuritis, with Notes of Three Cases.

BY C. J. LUNDY, M. D.

On account of its occurrence in connection with many other serious diseases, which are alike interesting to the general practitioner and the ophthalmic surgeon, I trust a few remarks on the subject of optic neuritis and the notes of a few cases will not be devoid of interest to the readers of the LANCET.

Optic neuritis may be produced by a variety of causes, but however produced, it is always a grave affection. Theoretically, we may divide it into ascending and descending; but practically, it is not an easy matter to distinguish between the two, unless we are aided by concomitant symptoms.

In many cases the retina participates in the inflammatory process to a greater or lesser degree; and where the retina is involved to a considerable extent, neuro-retinitis would seem to be the more appropriate term to designate the disease. However, my remarks will be confined mainly to affections of the nerve, and if mention be made of retinitis, it will be only incidentally.

The onset of the disease is occasionally quite rapid, and the patient is surprised to find his vision has suddenly become seriously impaired. This is shown very forcibly in L. A.'s case, the notes of which will be given in this paper.

As a rule, the loss of sight is not so sudden, nor is it always so complete, as in the case referred to. In many cases the failure of vision is gradual, and often some time elapses before the specialist is consulted, and by this time considerable changes are likely to have taken place. The optic disc may be hyperæmic and reddened, it may be swollen and œdematous, or it may have become atrophied and cupped, but the condition present will be dependent mainly upon what time the patient is seen. Vision, too, may be only slightly blurred, or it may be quite dim, or the patient may be entirely blind; but the range of vision does not, like the appearances of the nerve, point out the stage of the disease which the patient has reached. However, if atrophy of the nerve has taken place, the patient's vision, as a rule, will be very poor.

In nearly all cases where brain lesions act as the exciting cause, both optic nerves are affected, but not always to the same extent; nor does the nerve most affected bear any constant relation to the part of the brain most involved.

As previously stated, optic neuritis may be produced by a variety of causes. It is frequently associated with other diseases which act as exciting causes, and to so great an extent is it dependent on other affections that some writers are inclined not to consider it a substantive disease, but class it, like dropsy, as a symptom of disease in some other part.

Prominent among the causes of optic neuritis are basilar meningitis, cerebral syphilis, tumors of the cerebrum or cerebellum, malarial poisoning, growths or inflammatory products in the orbit, lead poisoning, embolism of the arteria centralis retinæ, etc. It is occasionally associated with Bright's disease, but usually in the form of a neuro-retinitis. It also occurs as an independent disease, and is seen as a complication in affections of the retina and choroid.

In a recent number of the *R. L. Ophthalmic Hosp. Reports*, Mr. Hutchinson records fifty-two cases of optic neuritis. Of these, seven cases were caused by "tumor of the brain," twenty-one cases by "cerebral syphilis," and twenty-four cases by "meningitis." Dr. T. Clifford Allbutt, in a paper published in the London *Lancet* for 1869, states his belief that the optic nerve is affected in all cases of tubercular meningitis where it involves the anterior portion of the base of the brain; and he gives his observations of twenty-five cases of undoubted tubercular meningitis, and in all of these there was either disturbance of circulation in the optic nerve, or actual neuritis. In a recent number of the *Archives of Ophthalmology and Otology*, is given the report of the cases presenting themselves at the N. Y. Ophthalmic and Aural Institute for one year. In this report fifty-two cases of atrophy of the optic nerve are given, and it is but fair to presume that in nearly all of these there had been a primary inflammation, either as a neuritis, or a neuro-retinitis. The following are the assigned causes: cerebral disease in three cases, spinal disease in two cases, syphilis in eleven cases, injury in four cases, lead poisoning in two cases, independent of other diseases, two cases, and in twenty-eight cases the cause was not determined. Although these cases are not sufficient upon which to base calculations, yet it is plain that meningitis and syphilitic affections of the brain are important factors in the production of optic neuritis.

The *modus operandi* by which these various causes may give rise to neuritis is not always the same. In cases of brain tumors, inflammatory products, syphilitic gummata, orbital tumors, etc., it may be produced by interference with the return circulation through the ophthalmic vein, or cavernous sinus. This disturbance of circulation causes stasis and congestion, which terminates in serous effusion and inflammation of the nerve, or its sheaths.

Schwalbe has shown that by injecting fluid into the subarachnoid space, he could force a portion of it forward between the sheaths of the nerve; and these experiments have been verified by Schmidt and others.

Upon these experiments is founded the theory that any cause, which gives rise to increased brain pressure, may in a similar manner force the subarachnoid fluid forward into this space between the nerve sheaths, which is continuous with, and similar to, the subarachnoid space. This condition cannot long exist without interfering seriously with the nutrition of the nerve, and disturbing its circulation, and terminating in neuritis. However, some writers have attempted to show that neuritis was seldom or never produced in this manner, but the weight of authority is in favor of accepting the views of Schwalbe. The nerves themselves, the chiasm or optic tract, may be injured in various ways. They may become involved in an inflammatory process, which had its origin in adjacent structures, or they may become permeated and destroyed by syphilitic and other new formations, as in a case recently reported in the *Archives of Ophthalmology and Otology*.

In making a diagnosis our main reliance must be placed upon the ophthalmoscope, although many circumstances may point very strongly to some affection of the nerve, even without the aid of this instrument. If, in the progress of any "coarse" intra-cranial disease, a patient's vision should begin to fail; or if a patient should come to us, partially or totally blind, with a history of cerebral disease, from which he may or may not have fully recovered, we may reasonably suspect some complication of the optic nerve. However, our opinions regarding any given case can be but little more than surmises, for by aid of the ophthalmoscope alone can we make any positive diagnosis.

On ophthalmoscopic examination, the appearances which present themselves will depend to a great extent upon what time the patient is seen. However, different cases may differ greatly in this respect, for in some cases the progress of the disease, from the stage of invasion to that of atrophy, is much more rapid than in others. Different cases will also present different appearances even at the same stage of the disease, but it will be only necessary to note those more usually present. If the patient is seen early, a hyperæmia of the optic disc will be noticed, and its outlines will appear indistinct. This hyperæmia is followed by serous effusion and swelling, which continue to increase till the outlines of the disc may become entirely obliterated, and a portion of the retina has become involved. On account of a partial continuity of structure, as well as for other reasons, there is in some cases a great liability on the part of the retina to take on the inflammatory process, as is seen in the case of L. A., given in this paper. It is in such cases as this that the term neuro-retinitis would be more appropropriate, particularly if the implication of the retina is considerable. Usually marked changes take place in the retinal vessels, both arteries and veins. The former are diminished in size—occasionally to mere threads—while the latter become enlarged and tortuous. After a time further changes take place, and the swelling and œdema of the disc begin to disappear; the disc gradually becomes flattened and finally excavated, and from its opaque woolly appearance it changes to a bluish white or greyish white. When atrophy has taken place, the retinal veins, as a rule, become less tortuous and their caliber is also diminished, even below the normal. The arteries remain much smaller and sometimes can with difficulty be traced to any considerable distance beyond the margin of the disc. Occasionally, cases occur in which the swelling of the disc disappears without leaving such marked evidence of previous trouble. Cases are also met with in which swelling of the optic disc exists for a considerable time before much, if any, failure of vision is noticed.

The ophthalmoscopic appearances do not indicate in any definite manner the disease upon which the neuritis depends; and Dr. Carter cites a case in which several eminent ophthalmic surgeons expressed the opinion that the neuritis was caused by intra-cranial disease, when really it was dependent on disease of the kidneys, as was subsequently proven by a post-mortem examination. However, the ophthalmoscope will often be of the greatest importance in aiding us to make a diagnosis where cerebral disease is suspected.

From what has already been said, it may be inferred that the prognosis cannot be a favorable one as regards the patient's vision, and often it must be grave as regards his life. In many cases, no doubt, the patient succumbs to the primary disease before any defect of vision is noticed, or before any correct diagnosis is made. In many cases the patient is left totally blind, as in the case of A. C. S., herein reported. Many retain some degree of sight, some are restored to useful vision, and a few recover completely. In the October, 1877, number of the London *Lancet* is reported a case of well-marked optic neuritis occurring after injury, which terminated in complete recovery. On the whole, those cases caused by tertiary syphilis warrant the most favorable prognosis, especially if they are seen sufficiently early. Mr. Hutchinson, in his report already referred to, states that, of the twenty-one cases of neuritis caused by syphilis, two (or about one in ten) recovered complete and perfect vision. The more favorable prognosis in syphilitic cases might be accounted for by the fact that cerebral syphilis is more amenable to treatment than many other serious intra-cranial diseases, and one important indication —that of removing the cause upon which the neuritis depends— can be fulfilled.

The treatment of optic neuritis might properly be considered under two heads. Under the one might be considered remedies which are useful in checking the progress of the neuritis itself, remedies which tend to remove the inflammatory products, and remedies which exert a favorable influence in restoring the function of the nerve after atrophy has begun; under the other might be considered the best means at our disposal for removing the cause of the neuritis where such cause is known to us, and where its removal is possible.

The means which have been found most useful in checking the inflammation of the optic nerve are blood-letting and mercurials. Leeches applied to the temples will meet the indication for blood-letting. One form of mercurial prized by many in such cases is the unguent. hydrarg., which should be applied thoroughly to the inside of the thighs or the arms, night and morning. This should be kept up until the effects of the drug are manifest. Many combine with this treatment small doses of the hydrarg. perchlorid. internally. After the neuritis has somewhat subsided, the iodide of potash will be found a useful remedy in removing the products of inflammation. Mercurials are also useful, even in this stage, but probably not so much so as the iodide.

Later, when atrophy of the nerve follows as a sequence of the absorption of the inflammatory products, and the contraction which attends it, strychnia will be found a valuable remedy in many cases, while, unfortunately, it is useless in others. The beneficial effects of this drug may be seen in the case of M. M. B., and also in that of L. A., hereafter reported.

It is beyond the scope of this paper to attempt a discussion of the best means for removing the various causes of neuritis. Unfortunately, in many cases, the cause cannot be removed, while, in other cases, it will be impossible to ascertain the cause, and L. A.'s case may be classed among the latter. If the cause be tertiary syphilis, iodide of potash, or the mercurials, will be found the best remedies. Where basilar meningitis is the exciting cause, the iodide of potash should be given freely. I remember a child of four years, in one of the New York infirmaries, who had optic neuritis, due to meningitis, and to whom ninety grains of the iodide (the equivalent of six drams for an adult), were given daily, without producing gastric or other disturbance. If malarial poison be the exciting cause, quinine should be given freely, and Dr. Macnamara, who has had extensive experience in the treatment of such cases, states that they yield very readily to quinine. And so it should be in every case; let the exciting cause be removed, if its removal be possible.

Case 1—April 15th, 1878, I was requested by Dr. C. to visit in consultation and examine Anna C. S., æt. 8, who had become blind during a serious illness, accompanied by cerebral symptoms. The following history was obtained, a portion of it at the time, and the remainder of it subsequently: About June 1st, 1877, patient's health began to fail. She lost flesh; appetite became poor; she grew fretful and peevish; at times lost all interest in play with other children; had attacks of headache; had dizzy spells occasionally, and bowels were constipated.

About August 15th patient was sent to the country, where her condition improved, and she gained flesh, but she was not entirely free from headache. After a six weeks' stay in the country patient returned to the city, and in a short time after all the old symptoms returned, and patient began to vomit occasionally. Her condition gradually grew worse, and on November 7th Dr. C. was called to see her. At that time headache was pretty constant, and was referred to the occiput; the vomiting was frequent, patient much emaciated, bowels very costive, dizzy spells more frequent, temperature scarcely above the normal except towards evening, pulse between sixty and seventy, respirations normal. Her condition gradually grew worse, and on November 15th it was noticed that her left eye was blind, and soon after she became blind in the right. November 22d she took regularly to bed, where she remained three months before attempting to sit up again; no delirium; answered questions intelligently; slept very poorly (not more than an hour at a time); was very restless at night; moaned a good deal and complained of her head, but did not cry out; lay mostly on right side, inclined forwards towards abdomen and chest; the muscles at nape of neck began to grow stiff, which condition remains even yet to a slight extent. November 26th, my friend, Dr. M., saw the child in consultation, and observed the following conditions: Face pale, skin dry, abdomen retracted; patient much emaciated; lay on her left side, with legs drawn up; no tenderness over spine; no evidence of paralysis; reflex action not increased; pupils dilated; no vomiting that day; patient lay in a semi-unconscious condition, and, if roused up, seemed peevish and fretful; answered "no" and "yes" intelligently to a few questions. An unfavorable prognosis was given.

For some time patient's condition remained about the same, except that she became more feeble. On account of inability to retain food she was nourished for several weeks by supporting enemata. Kidneys were very inactive, and, unless diuretics were given, very little urine was voided. The excreta were passed naturally, and never without patient's knowledge. At no time was there delirium, nor did she ever cry out. After the middle of December her condition began to improve, and on December 23d headache had disappeared, vomiting ceased, she slept better, and her general condition was much changed for the better. From this time on patient improved steadily but slowly, till February 22d, 1878, when she sat up for the first time, but she was too feeble to walk alone for several weeks after.

When I first saw her, April 15th, she was still feeble and anæmic, was in possession of all her senses, save that of sight, appeared ordinarily intelligent, answered questions regarding her recent illness, and seemed to remember quite well. The muscles about nape of neck were stiff, and any great effort to turn the head too far to either side caused pain. There was no paralysis of any muscles.

On examining the eyes, the pupils were dilated, readily movable, not influenced by light, marked nystagmus, and no perception of light. With the ophthalmoscope, media clear, marked bluish white atrophy of both optic discs; retinal arteries of both eyes much diminished in size, the diminution being greater in left than in right, retinal veins also diminished, but those of right not much smaller than normal. In right eye there was mottled condition of retina in vicinity of optic disc, as though retina participated in an inflammation. In left eye mottled appearance of retina more marked and more extensive than in right, and in immediate vicinity of disc there were some choroidal changes. Diagnosis: atrophy following optic neuritis, caused by basilar meningitis.

November 8th, 1878, date of last consultation. Patient's physical condition has greatly improved, although she is still somewhat anæmic, and her mental condition is normal. The ophthalmoscopic appearances remain unchanged. There is qualitative perception of light, and nystagmus is not so marked.

Strychnia has been administered, but so far without good results.

In conclusion I might add that patient's grandmother on mother's side died of tubercular disease of the lungs, and that a sister of patient's, æt. 3½, died of cerebral disease after a week of severe illness following a week of prodromata.

Case 2.—May 20th, 1878, Martin M. B., æt. 40, widower, consulted me on account of failing vision. Five months ago his left eye began to grow dim, and from that time till a month ago, vision in that eye gradually failed, since which time there has been no change. For the past two months vision in right eye has also been failing, and now it is very poor. Vision in right eye=$\frac{20}{100}$ ($\frac{1}{5}$); in left eye=$\frac{2}{200}$; can count fingers nearly two feet distant. Right eye, pupils normal; media clear; left eye, pupil slightly dilated, does not respond readily to influence of light; media clear. Ophthalmoscopic appearance of right eye shows swelling and œdema of optic disc; its outlines shade off into swollen retina, which, in vicinity of disc is infiltrated with inflammatory exudate; veins swollen, dark and tortuous, and arteries somewhat diminished in caliber. Left eye shows signs of previous optic neuritis, which has passed into atrophy; arteries and veins both diminished in size; veins are slightly tortuous, but not much smaller than normal. Atrophy of optic disc not very pronounced, especially on nasal side.

Patient gave the following history: About eight years ago had hard chancre, followed by secondary symptoms, such as roseola, papillary syphilide, sore throat, partial alopecia, etc. About that time he had a few months' treatment, after which these symptoms subsided, and patient considered himself cured.

Two years ago he had an ulcer on his leg, which was evidently syphilitic, the scar of which remains. He took "some medicine for his blood," and the ulcer finally healed.

About nine months ago patient began to have occasional attacks of severe headache, which have gradually increased in frequency and severity till the present. These headaches have always been worse at night. Some weeks ago patient had a "fit," lost consciousness, and afterward had slight hemiplegia, from which he recovered in about a week. Patient has had attacks of vertigo occasionally. No tenderness is discernible over the cranium. Patient complains of being easily fatigued by either physical or mental exertion, skin is very sallow; intellect does not seem impaired.

The history of the case, the condition of the patient, and the ophthalmoscopic appearances lead me to the conclusion that patient is suffering from cerebral syphilis, and that the optic neuritis is dependent thereon. I think the "fit" was an apoplectic seizure, probably due to thrombus, which was caused by syphilitic endo arteritis; while the optic neuritis is probably caused by presence of gummata.

Ordered leeches to right temple; also the following: Of a saturated solution of iodide of potassium, ten drops after each meal, and each day the dose to be increased two drops, so that at the end of ten days patient was taking ninety drops (nearly 75 grains) of the iodide daily.

June 2d. Patient feels better, and does not suffer so much from headache. Right eye, optic disc seems less swollen, and veins less tortuous, but there is not much change. Left eye, no perceptible change. Vision in both eyes as when first noted. The iodide now occasionally produces some gastric disturbance, and is increased slowly.

June 12th. Patient has reached the limit of toleration of the iodide at ninety grains daily, and it is discontinued. Right eye, vision=$\frac{20}{70}$ ($\frac{2}{7}$); in left eye, vision=$\frac{5}{200}$ ($\frac{1}{40}$). Right eye, swelling of disc diminishing, veins less tortuous, arteries not changed. Left eye, appearances not perceptibly changed.

Ordered unguent. hydrarg. to be applied to inside of the thighs or the arms night and morning. Also ordered the following:

℞.	Quiniæ sulphatis	℈ij.
	Strychniæ sulphatis	gr. jss.
	Ferri sulphatis	ʒj.

M. Ft. in pil. No. xxx. Sig. One pill thrice daily. The strychnia was given for its effect in cases of atrophy of the optic nerve.

June 24th. Patient's general condition much improved, headache much relieved, skin not nearly so sallow. Right eye, vision=$\frac{20}{80}$ ($\frac{1}{4}$), optic disc not much swollen, veins smaller and less tortuous. Left eye, vision=$\frac{8}{200}$, appearances unchanged. The unguent. hydrarg. has caused irritation of the skin, and was discontinued, and patient ordered hydrarg. proto-iodidum in doses of gr. $\frac{3}{4}$ to gr. $\frac{1}{4}$ three times daily. The tonic pill continued and strychnia increased. July 15th. Patient's condition improved, headache entirely gone, appetite good, and general appearance better. Right eye, vision=$\frac{20}{40}$ ($\frac{1}{2}$) +. Left eye, vision=$\frac{10}{200}$ ($\frac{1}{20}$). For past couple of days patient's gums have been tender, and the mercurial pill has not been taken. Ordered the following:

℞. Potas. iodid.	ʒj.
Hydrarg. perchlorid.	gr. ij.
Syr. aurantii.	℥iij.
Aquæ, q. s. ad.	℥vj.

Mx. Sig. Half a teaspoonful gradually increased to two teaspoonfuls thrice daily. Strychnia continued in increasing doses. This treatment, with occasional slight variations, was continued till August 15th. At that date, patient's condition good. Right eye, vision=$\frac{20}{30}$; swelling of optic disc almost entirely gone, veins about normal but still slightly tortuous, arteries unchanged. Left eye not materially changed, except nutrient vessels of disc appear slightly more prominent. Patient allowed to discontinue all treatment for one week.

August 23d. Ordered hydrarg. proto-iodid. gr. $\frac{1}{2}$ thrice daily, and strychnia sulph. gr. $\frac{1}{16}$ thrice daily. September 20th. Patient in good condition, complexion clear, appetite good, sleeps well and remains free from headache, and has had no vertigo for a long time. Right eye, vision=$\frac{20}{30}$, slight atrophy of optic disc, vessels about as when last noted. Left eye, appearances much the same, disc does not look so pale; vision=$\frac{20}{100}$ ($\frac{1}{5}$). October 1st. Patient left the city, but no change from last notes. Patient was advised to continue use of strychnia, and in course of a few weeks to commence the use of the iodide of potassium in ten-grain doses thrice daily, and continue it three months, and to resume it again should any "head symptoms" return.

Case 3.—Lottie A. was, until recently, a resident of New York, and for several months was under the care of Drs. Agnew and Webster, the eminent specialists of that city. As the patient was about to leave New York to reside in Detroit, she was instructed to place herself under my care on her arrival here, and on July 11th she came to consult me. She did not bring a letter, but several weeks after first consultation, my friend Dr. Webster kindly furnished me the early history of the case, which will be given in full, and is as follows: February 23d, 1878; Lottie A., æt. 18. Saturday night, February 16th, after retiring, patient noticed blur over right eye, and on being taken into the hall, by the gaslight could only distinguish light from dark with right eye. Had no pain in the eye till yesterday and to-day. Had leeches applied to temple on Monday, and has worn medium blue coquilles.

The ophthalmoscopic appearances on Monday were those of embolism of the central artery—the arteries being thread-like, and the region about the cherry-red macula being of a milky whiteness. Right eye, vision=0 (no perception of light). Left eye, vision=$\frac{20}{20}$, E. (+ $\frac{1}{72}$ blurred in the distance).

Ophthalmoscopic appearances: Right disc swollen (H $\frac{1}{72}$), arteries small, veins normal, milky exudation into whole of retina, except extreme periphery. Patient has always been subject to headache. [Upon closely questioning patient on this subject she stated that the headaches occurred only occasionally.] Patient has no disease of heart or kidneys. Never had syphilis. She has, from her earliest recollection, been subject to attacks of dimness of vision, with photopsiæ which passed away after a few minutes. Ordered unguent. hydrarg. to arms.

March 4th. Vision clearing up; sees large objects peripherally, but not centrally. Most of the retinal infiltration has disappeared, and the outlines of the disc are distinctly visible. Stopped unguent. hydrarg. March 1st, and she has since been taking iodide of potassium in increasing doses.

March 14th. There is marked atrophy of the optic nerve; the disc is white, and the arteries not more than one-fourth their normal size. The veins are also slightly reduced in size. Right vision, counts fingers at one foot distant in extreme temporal portion of field. Has had for two days a kind of smoky vision with left eye, and yesterday was blind for about one minute. Ophthalmoscope shows some hyperæmia of left disc, as though the veins were somewhat obstructed. Stopped iodide of potassium two days ago, because mouth became sore. Ordered ergotine gr. iij ter die; strychnia nitrat., gr. $\frac{1}{40}$, to be injected hypodermically. March 15th. Ordered strych. nitrat. gr. $\frac{1}{30}$, and to be carried up to physiological effects.

June 20th. Left vision, $\frac{20}{20}$. Complains of flashes of dark and light spots before left eye. Right vision and ophthalmoscopic appearances remain unchanged. The notes made by those careful observers, Drs. Agnew and Webster, are very important, and show the case to be one of very great interest.

My own notes are as follows: Right eye, external appearances normal; pupil movable, responds readily to influence of light; media clear. Ophthalmoscopic examination shows marked atrophy of optic nerve, disc grayish white, arteries mere threads, veins also much diminished and not tortuous, nutrient vessels of disc plainly visible. Retina mottled, as if from previous inflammation. Left eye, appearances normal in every respect. Vision, right—$\frac{1}{200}$ to $\frac{2}{200}$ (can count fingers about one foot distant); left—$\frac{20}{20}$.

On July 11th, the hypodermic use of nitrate of strychnia was begun, and $\frac{1}{30}$ of a gr. was used daily. This was gradually increased to keep up physiological effects of the drug. For a long time no perceptible improvement in vision took place, but finally it did improve. The ophthalmoscopic appearances remained unchanged. In the mean time patient's physical condition improved and she gained considerable flesh.

September 23d. Appearances in right eye about as when first noted (July 11th); left eye, appearances normal; patient does not complain any more of flashes of light, and blurring of vision has occurred but once in several weeks. Has had no headache for some weeks. Vision, right=$\frac{20}{100}$ (seen mainly peripherally); left, $\frac{20}{20}$.

It is not my intention to enter into any lengthy discussion of the cases just related, but it seems to me a few remarks would not be out of place. In regard to case 1, the important question as to the nature of the primary disease is worthy of consideration. I think there can be no reasonable doubt that there was a meningitis of the base, for meningitis which causes optic neuritis is nearly or quite always basal, but whether it was of tubercular origin, whether it was a simple meningitis which attacked the convexity and the base simultaneously, or whether it extended from convexity to base, is a question which is not easily answered. I believe it is pretty generally conceded that a meningitis, affecting the base primarily, is tubercular in character. It is maintained by many that all cases of tubercular meningitis end fatally. However, Dr. Allbut has given pretty conclusive evidence in several papers on this subject that tubercular meningitis is not nearly so fatal a disease as many writers would have us believe. He relates a case in which the diagnosis of tubercular meningitis was made, and in which optic neuritis was present, the patient recovered his health, but not fully his sight, and a few years subsequently the boy died of an acute tubercular meningitis, and the *post-mortem* revealed evidence of an old basilar meningitis, while the convexity showed no signs of previous disease. Dr. Allbut concedes, and I think no one will attempt to deny, that acute tubercular meningitis is almost always fatal; but he maintains that many subacute cases recover, and in this opinion he is supported by many acute observers and able diagnosticians. I quote from Mr. Hutchinson's report, already referred to in this paper, where, commenting on tubercular meningitis and its great fatality, he says: "In a certain number, however, after a severe attack of cerebral symptoms, the child recovers, and on recovery is found to be blind." In this paper he classes 24 cases of optic neuritis as due to tubercular meningitis, but adds that the diagnosis of tubercular meningitis could not be maintained in all of them.

In the case of A. C. S. under consideration, I incline to the belief that it was of tubercular origin. The long prodromic period with its accompanying symptoms, the failure of vision at the beginning of the invasion period (before the patient took regularly to bed), the slow progress of the case, the manner in which the patient grew gradually worse from day to day, the absence of any acute outbreak in the disease at the invasion period, do not point to a history of simple meningitis. Then, too, its occurrence at that period of life when tubercular meningitis is comparatively frequent, and simple meningitis is rare, is another point worthy of consideration. Then, again, we find a history of tubercle in patient's family — the grandmother died of tubercular disease of the lungs, and a little sister died of a cerebral disease which was probably of tubercular origin.

In case 2, while many symptoms are wanting which often accompany syphilitic disease of the brain, yet I think the case one of undoubted tertiary syphilis, and the happy results of treatment would go far towards confirming the diagnosis. Whether the apoplectic shock was really due to thrombus of a cerebral artery is an interesting question, and one that cannot be answered in a positive manner. Recent investigations have shown that disease of the arteries is of frequent occurrence in cerebral syphilis, and I can readily understand how the collateral circulation might be quickly established, if the disease of the arteries was not extensive, and how the patient might so rapidly recover from the hemiplegia. A few years ago I had a patient under observation who was suffering from cerebral syphilis, and who had an apoplectic shock, followed by hemiplegia, from which she recovered in a few days, although the facial paralysis remained for some time. She had had a specific retino-choroiditis which seriously and permanently impaired vision; there were scars showing the site of former tertiary ulcerations, and there was a node on the cranium, so that the diagnosis of syphilis was clear, and it was confirmed by treatment and recovery.

The diagnosis of gumma, in the case of M. M. B., under consideration, was made because it is the form in which cerebral syphilis most frequently manifests itself, and the form most likely to cause optic neuritis.

In regard to case 3, it has already been intimated that the primary cause of the optic neuritis could not be determined, although it was carefully and repeatedly looked for. While the history of the case pointed towards embolism of the central artery, yet the most careful examination could not detect any disease of the heart. Nor could the most careful inquiry or examination detect any one of the causes which would be likely to give rise to optic neuritis.

The temporary disturbances of vision in the left eye were somewhat peculiar, and are not easily explained. Claude Bernard, Brown-Sequard and others, have shown that irritation of the cervical sympathetic caused contraction of the vessels in and anæmia of certain parts, particularly the eye. Whether there was in this case some irritation affecting the vaso-motor nerves, giving rise to temporary anæmia of the retina, which, by interfering with its nutrition and impairing its sensibility, caused these spells of temporary blindness, is certainly a very interesting question. The photopsiæ were undoubtedly due to some stimulation or irritation of the retina, but whether these were of cerebral origin it is impossible to determine.

DETROIT, 43 Fort street west.

Hystero-Epilepsy—A Statement of Some of its Characteristics.

BY LEARTUS CONNOR, A. M., M. D.

Our knowledge of this disease is almost wholly due to the labors of M. Charcot. I desire to direct attention to it at this time, principally to illustrate the meagerness of our conceptions respecting the nervous system. My facts I have gleaned from various sources. When accounts of the vagaries of this disease were first published, I gathered the impression that there was little or no foundation to them other than vivid imagination and gullibility. But when, finally, I saw that such men as Prof. R. Virchow, Grainger Stewart, Turner, Oscar Liebreich, Dr. Broadbent, Mr. Ernst Hardt, and Prof. A. Gamgee regarded the matter as worthy of their consideration, then I looked over the mass of evidence presented, with the following result: Its salient features are well stated by Dr. A. Gamgee (*British Medical Jour*, Oct. 12, 1878), as follows: "Hystero-epilepsy is a nervous disease of women of great rarity, affecting them during the child-bearing period of life; sometimes, though rarely, occurring before the actual commencement of menstruation, and continuing after its cessation. It is associated with hyperæsthesia in one or both ovarian regions, and is usually attended by hemi-anæsthesia and more rarely by anæsthesia of both sides of the body. There is some if not complete loss of tactile sensibility, and usually absolute insensibility to pain of skin and all other sensitive structures on the affected side; the muscular sense being, however, nearly always preserved.

"There is some degree of paresis of the affected limbs. The loss of sensitiveness may or may not affect the organs of special sense; it frequently does so affect the eye, which becomes affected with a remarkable form of color blindness (achromatopsia). It is characteristic of the hemi-anæsthesia of hystero-epilepsy that by various means—action of magnets, solenoids, metallic plates—it may be momentarily diverted from the affected side, which then regains its normal sensibility, and transferred temporarily to the opposite side of the body. The essential and pathognomonic sign of the disease is the occurrence of attacks which present remarkable phenomena in a definite order; at first epileptiform, then affecting the mental functions of the patient, who, by gesture and actual utterance, reveals to the spectator various phases of emotional activity. The disease usually does not tend towards recovery, though recovery occasionally occurs. It may continue for many years without any perceptible influence upon the health or mental condition of the patient, and when death occurs it appears to result from intercurrent disease which, in relation to the primary disease, may be termed accidental." Dr. Gamgee now describes some experiments that he saw in Charcot's wards. (1) An anæmic girl, aged 20, whose disorder had its origin in the terrible scenes enacted by the Commune. In this patient there

was complete right hemi-anæsthesi
ing the eye of the same side, wi
tinguish red. There was complet
gesia) on the right side, so that a n
the hand without occasioning the
The skin of the opposite side was
insulated wire—a solenoid—connec
single carbon zinc and chromic aci
envelop the little finger of the
Almost instantly the sound sid
and the previously normal eye bec
but red, whilst the power of disting
color-blind eye became perfect.
finger withdrawn from the solenoi
matopsia resumed their usual distr

The patient could be readily thr
simply opening her eyes and stari
a darkened room and caused to lo
fell into a sleep and passed into
when in this state, any person qu
fingers to within half an inch of h
awake with a cry of "Ah!" evinc
mental, if not physical, pain.

Case 2 was a woman aged 54, a
epilepsy for forty-three years. Sh
state until 1876, when they left he
lute insensibility to pain on the le
through any part without pain.
magnet were brought to within a
of the fore-arm of the affected s
sensitiveness of the two arms was
needle. After some minutes the
magnet had regained its sensitive
bitterly when a needle was mere
without pricking it, while the arm
completely anæsthetic and could
without the patient being aware

[illegible] touch the magnet, being at a distance from it of ½ to ¼ inch. Ordinary iron had no effect on the patient.

Other cases of hysterical contraction relatively recent in their origin, were cured by this use of the magnet. Case 3 was a fine powerful-looking and apparently healthy woman. Lack of sensibility existed on all parts of her skin. With her right eye she can distinguish all colors but violet; with her left eye she can distinguish no color but red. At 11 A. M. a magnet was placed at about a third of an inch from the left temple. At 11.05 A.M., on pricking the skin of the left side of the head, there was a slight evidence of sensibility. Her left eye was still color-blind to all but red. At 11.06 A.M., she could distinguish blue at the corners of a blue sheet placed before her. No other color can be distinguished. At 11.07 A. M., she sees blue all over the sheet, and sees yellow at the corners of the sheet. At 11.13 she begins to distinguish green at the corners of a sheet. At 11.14 she distinguishes perfectly all colors but violet. On now examining the right eye it is found to be perfectly color-blind, except for red. Thus a magnet, at an appreciable distance from the temple on the side of the color-blind eye, has transferred the affection to the sound eye.

In all of these cases there is more or less tenderness over the region of one or both ovaries. Hystero-epileptic convulsions frequently begin by an aura taking its origin in the hyperæsthetic ovary. An attack of these convulsions may be cut short at any time by firm pressure made over the sensitive ovary.

Now, we are impressed with the following facts here brought forward:

1. The effect of magnets, etc., at a distance from the nervous system—not in contact with the surface of the body. Such effects have never been obtained by experiments upon the lower animals.

2. Still more startling is the fact that magnets, etc., at a distance from the nervous system, have the power of transferring sensibility from one side of the body to the opposite; color-blindness from one eye to the other. With our present knowl-

edge, these facts are simply inexplicable. As Claude Bernard expressed it, when the facts came to his knowledge a short time before his death, "the facts show how little we *do* know."

M. Burgi, some time since, announced the following proposition as expressing his experience in treating a number of cases of hystero-epilepsy: "That the external metallic aptitude being known, the same metal administered internally will determine the same results as its external application." This proposition had been referred to a committee of experts, of which Charcot was chairman. In a report published in the ***British Medical Journal***, they adduce evidence of a conclusive nature in favor of the proposition. We may remark that all observers found that the external application of plates of certain metals modified the sensibility and the muscular force of hysterical persons. Each patient is said to be sensitive to but *one metal.* The first step practically is to discover the metal which will influence the particular patient under observation. M. Burgi gives the following list as the scale of frequency with which different metals influence patients: Iron, copper, zinc, gold, silver, tin, rarely platinum, and probably arsenic and antimony. Metallic plates the size of large coins, or wooden plates coated with the metal, are employed. They are arranged in the form of a bracelet about the member or simply held in place by a bandage. In a period varying from one to fifteen minutes objective changes are observed. The anæsthetic skin, before pale, cold and almost bloodless, now becomes reddened, warmer and even hyperæmic. The patient begins to complain of numbness at that spot, and the sensibility begins to return, and finally the patient, before insensible to deep pricks, shuns the approach of a pin. At the same time the special senses return to their former normal activity, and the enfeebled muscles to their full power. If a contracture existed, it disappears. But the normal side of the body has lost exactly what the diseased side has gained. The contact of the metal has transferred the sensibility from one side to the other. If the metal plates be removed, the patient returns to her former state in the course of a day or two. If the metal is continuously left in place the patient finally returns to her former state.

Now, this commission found that M. Burgi's assertions were correct, and that when once the metal was found which, when applied externally, would modify hysterical phenomena, then the internal administration of the same would be followed by a relief of the symptoms. To illustrate, we quote briefly a single case. Bucquet, a hystero-epileptic patient, was anæsthetic on the right and only analgesic on the left side, with contraction of the right leg. Having previously ascertained that Bucquet was sensitive to gold, she was treated now internally by this metal, and in one week the patient had recovered sensibility in the whole of the right side. In three weeks the sensation had become normal; the hysterical phenomena had disappeared, though she still continued to have epileptic seizures. Her general state was very satisfactory and menstruation regular and abundant.

Before the Paris Society of Biology the following experiments were performed last January. The patient was a young woman who, for ten months, had showed symptoms of the hysterical diathesis. The right ovarian region was painful to pressure; there was cutaneous hemi-anæsthesia of the right side and anæsthesia of the special senses, particularly on the right. In fact there was complete achromatopsy of the right eye and dyschromatopsy and incomplete achromatopsy of the left eye. The patient was a saleswoman, and for some months had been unable to distinguish the colors of the ribbons she sold. On November 20th, four pieces of gold were applied to the right temple, and in twenty minutes the patient could distinguish blue and yellow with the right eye. For a month the patient was submitted to external and internal treatment by gold; and on December 20th she could easily distinguish all the colors, near her as well as far off. She was apparently cured of her hysteria and also stronger in health. The term apparently is used because experience has shown that when the hysterical diathesis is in full force the external application of metals will determine its manifestations.

Thus a couple of weeks after her relief, the external application of the pieces of gold would bring back the achromatopsy in the right and left eye, but always in a certain order—blue, yellow, orange, red, green and violet. Under the influence of the metal she lost them in the inverse order.

This law in therapeutics, laid down by Dr. Burgi, is so foreign to anything of which we have hitherto had any experience, that it will doubtless be slow in gaining favor; yet all the most careful of observers who have witnessed the experiments made in Paris, assent to it as thus far a demonstrated fact. Nor do any profess to give an adequate explanation of the fact.

Medical Interests During the Past Year—Their Changes.

ANNUAL ADDRESS DELIVERED BEFORE THE DETROIT ACADEMY OF MEDICINE BY THE RETIRING PRESIDENT, LEARTUS CONNOR, A. M., M. D.

MR. PRESIDENT AND GENTLEMEN OF THE DETROIT ACADEMY OF MEDICINE—To-night we celebrate the tenth anniversary of the Academy's career. It is fitting that we look back to the past, about us in the present, and wisely plan for the future. At our organization the population of Detroit was about 67,000, now it is about 130,000—almost double. This fact itself indicates great and radical changes in the medical profession and the institutions that are specially connected with its work. So gradual have been these changes that few of us realize their full import. Like all changes they are the resultant of opposing forces. Conflicts of word, of pen and of deed have from time to time prepared the way for the structure that we see.

In all of these the Academy, by its fundamental principles, has dealt only with questions of medical science, art and gentlemanly good fellowship. Hence no matter how the din of conflict sounded without our organization, all has been peace and harmony within. Wiser than they knew, its founders prevented the sowing of the seeds of discord.

Time fails me to dwell upon the good work for medicine and profession that has been done by the little band that, twice every month for ten years, has gathered here. Suffice it to say that good fellowship in the profession has been promoted, that constant practical thought and action has been stimulated, that scholarship has been encouraged, that the good name of the profession has been increased manifold in our own and foreign lands.

Turning from this decade as a whole to the past year alone, we find that in no one has the Academy been more thoughtful or active. In the average attendance, in the papers read, in the discussions and specimens presented for information or criticism, marks of a vigorous existence have been more han usually prominent. Nor has the slightest jar disturbed our wonted harmony. Habitual courtesy in manner and act on the part of all present has rendered our meetings a source of unalloyed pleasure.

Some of our charter members have found it impossible to be with us as often as in former years. We have greatly regretted our loss of their words of wisdom and friendly greeting. Fervently we hope that their engagements during the coming year may enable them to serve the Academy with their wonted zeal.

Of the changes taking place among our active members are the following: The death of Dr. Bigelow in the fullness of a ripe old age; the removal from the city of Drs. Tucker, Munson and N. F. Brown, and the abandonment of practice by Dr. Carrier. Dr. Petershausen has again joined us and Dr. Robertson has lately united with our ranks. Corresponding member Dr. J. H. Beech has gone to his long home during the past year.

From my observations and experience I make the following suggestions for the future:

1. That all committees consist of one. My reasons are briefly these: (1) In a society so small as ours one man may be chosen who can do all the work required of any committee. (2) It is troublesome to arrange the committee meetings. (3) In ordinary sized committees each member is apt to wait for the other to do the work, so that unless the chairman takes it in his own hands, the whole matter at issue falls to the ground.

(4) In making one person sole committee we shall know exactly who needs commendation or reproof. The sense of personal responsibility will act as a stimulus to awaken the best endeavors in behalf the society's interests.

2. I suggest that the president of the society be constituted the authorized person to obtain papers and topics for discussion at the several meetings. During the past year I have myself assumed this duty and the result, imperfect as it is, has been such as to convince me that a working president, alive to our common good, will succeed in this matter far better than any committee appointed as has been our former custom.

3. Each member should see that he engages to read a paper on some *definite topic* at some *definite meeting*. It would greatly enhance our mutual good if in this way the topics for each meeting of an entire year could be arranged at the beginning of the year and printed on slips and distributed to the several members. Plenty of room would be left for volunteer papers, etc., while if members kept their promises no meeting would fail of its paper.

4. I submit the question to each member of the Academy: Can you afford to be absent from any meeting when it is possible for you to be present? Personally, I find that from no meeting do I go home without the consciousness of having gained something of more value than the time spent at the meeting. Then, too, the presence of the old members encourages the younger, and *vice versa*. In all my connection with the Academy I have never learned that any member received aught but good from attendance upon its meetings. A little previous thought in the arrangement of business will usually give most members the opportunity to spend this evening in professional intercourse. The late Dr. Inglis once read me a little sermon upon my duty to the Academy which I have never forgotten. Few were so busy as he, and yet few attended these meetings with so great regularity and made so great an effort to render them pleasant and profitable. Surely, in this, as in many other respects, his example and his precept are worthy of our emulation.

5. I suggest that a committee of one be appointed on pathological histology, also a committee of one on chemical analysis. To these committees I would have referred for proper investigation all pathological specimens or articles requiring microscopical or chemical work. Further, when so referred it should be understood that this Academy would pay all the actual expenses of the materials needed to pursue the investigation. It is enough for the Academy to ask the time and skill of the persons on the committee. We must remember that special apparatus and other materials are needed to do this work. In no better way can we spend our surplus funds than in the encouragement of such investigations.

Turning our thoughts from our immediate selves to the medical world about us we note: (1) A healthy growth and development of medical societies. In most of the States large numbers of county and other medical societies have come into existance. The importance of such can scarcely be overestimated. They bring doctors into contact with one another at points other than those connected with their bread and butter. This contact has demonstrated that after all, in most cases, the rival is a genuine good fellow. This once understood, rivals become friends and work for their common good in the thousand ways possible to them. Many new clinical facts of great importance have thus been brought to light, and all have been stimulated to a more accurate and persevering study and so to a better practice.

We notice also the formation of larger local societies, made up of the members of many smaller ones, as for example the Southern Michigan Medical Society. These still further promote professional influence and broaden professional courtesy and spirit.

As a rule, our State societies have in the past year done their usual quota of work—mostly now, as ever, of a social rather than a scientific nature.

The American Medical Association, in its last meeting, more than held its own in its beneficent work. As a leading power in our ranks it has made great advances since its meeting in

Detroit. With professional development have come special societies—ophthalmological, otological, neurological, dermatological, gynecological, therapeutical and laryngological.

It has come to be a recognized fact that small societies only can do effective scientific work. Hence, surely, it is most advantageous that those interested in the study of a special organ or apparatus should unite. For ourselves, we witness the growth of these societies with intense gratification. Harmonious workers give prophecy of better results in almost every department of medical science. The transactions of these several societies at their meetings during the past year have been at once a credit to themselves and an honor to our common profession. I wish that time would permit me to notice in detail some of the material advances thus made during the year just passed.

During this year several original works of great merit have been prepared and published in the United States. Notably among these are Delafield's "Studies in Pathological Anatomy," Duhring's "Atlas of Skin Diseases," Ott on the "Action of Medicines," Flint on the "Source of Muscular Power." A large number of other valuable works have been reprinted in this country. So extensive has been the custom of reprinting, that scarcely a work of real excellence appears in Europe without being reproduced here. Thus it is that the American profession has as good a book market to select from as can be found anywhere in the world.

As time passes libraries grow and laboratories are built and surplus funds accumulate to support original investigators. Thus it is that original scientific investigation is being gradually provided for. American medical books are now read in many languages, and in the not distant future they will contain large results of scientific study made in our own workshops that will eclipse those produced in other lands. In all this I have not alluded to the ordinary text-books which are in the main compilations from real original works or from the medical periodicals. Of these we have had the usual crop, and these seem to me of more than average excellence.

[illegible]ng over the field of medical journals we notice:

(1) That fewer new ones have started, indicating that some doctors at least have dismissed the idea that the originating of a medical journal will at once place them upon the pinnacle of fame, relieve them from all hard work and fill their coffers with fabulous quantities of gold. (2) The sharp competition among the survivors has compelled better work and more of it. In both of these ways the medical periodical literature of the past year may be fairly said to have advanced a step in its upward development.

The profession must ever have an abiding interest in its medical colleges. For in these colleges members of the profession were trained, and all who are to succeed them must enter our ranks through these same portals. They are the organized means by which is obtained that peculiar training required for entering our special work. One feature made more prominent this year is the attention paid to the development of the motor tract of the student's organism. A word in explanation of my meaning. Practically all the powers of a student may be divided into two classes: (1) Those that are connected with the receiving of ideas through the organs of sense into the brain. (2) Those that are connected with the expression of these ideas through speech or writing or various muscular movements. Ideas that have thus, as it were, gone in through the sensitive nerves to the cerebrum and there been dissected, assorted and arranged in the proper manner, and sent by the motor cells along the various motor fibers to the several apparatuses capable of giving a material expression to the ideas—these educate the student, whether he be medical or otherwise. Formerly the receptive tract alone was called into exercise. Then the student left college with at least half of his powers utterly uneducated. In bitter experience did he learn to properly connect his training with the motor tract. Now, in many ways this has been changed, and in the past year even more than before.

Two years ago some twenty-two medical colleges formed an association. Its object was, and is, to combine the best colleges in the country in all things which will promote the common professional good. It is still in its infancy, but during the past year it has added considerably to its membership. Its members, including those who have applied, number now twenty-eight.

1. It has prevented the formation of new schools upon an unstable and insufficient basis.

2. It has forced old schools to live up to their published requirements, as they never did before.

3. It has compelled many to modify their requirements in the interest of a better education.

4. It has limited the conferring of the degree of M. D. to one set of conditions, and so rendered its possession more honorable.

5. It has placed its foot upon schools that give two graduating courses in one year.

6. It has forced students to take their two regular courses of lectures in two separate years.

7. It has initiated a plan for organizing all the medical schools so that all shall require three regular courses in three different years.

8. It has determined that no regular course shall be counted that is not at least twenty weeks long.

We have great hope of this organization, because: (1) It is small, and so manageable. (2) Its moral influence when fully exerted will be enormous. (3) It represents a large amount of industry, culture and capital.

The graded system of instruction has been adopted at the University of the Pacific. The medical school of the John Hopkins University, at Baltimore, has been gradually organizing. With abundant capital, it should be a success from the start. But it seems to us that it has made a backward step in organizing a school, preparatory to the entering of the medical college, which in requirements is far below an ordinary college. To one pursuing this course, the degree of B. M. is given. The entire course seems to us worse than useless and capable of doing serious harm. Of those entering its medical department it should have required a full A. M. or its equivalent. The

University of Pennsylvania has safely passed through one year after the radical change in its curriculum. Of the changes in the medical department of Michigan University, you are all as well informed as myself.

A new departure has been taken in the State of Illinois in the matter of the legal relations of physicians. This creates a State board of health, and first among its duties places the regulation of the educational status of the physicians. To legally practice, every doctor was required to present his diploma to the board and get a license to practice, or else pass an examination which, if satisfactory to the board, entitled the applicant to a certificate. All who did not secure these certificates from this board could not practice medicine without being liable to fines and imprisonment and divers other tribulations. It is said that hundreds, not to say thousands, of so-called doctors have fled the State to infest our own and other States. Canada claims to have done even better than this. In view of these facts, the question arises, what can be done to protect our State from the overflow of these professional tramps? In my own mind, the whole question of the relation of the State to the practice of medicine under our form of government is one of great intricacy. I am inclined to the conviction that the less we seek protection and aid from the politicians that constitute our so-called State, the more prosperous will be our career.

It has long been apparent to many of our best workers that the medical profession could not greatly advance beyond its present position without so educating the lay public that in some real degree it could appreciate our advance. The public must be taught to appreciate better doctors ere it will support them. Now in the line of this education the State boards of health are doing excellent service. Among the best of these are the Massachusetts and Michigan boards. The published work of these boards during the past year has been such as strongly to emphasize the foregoing remarks. Besides, this work has thrown much light upon the etiology of many diseases and in other ways been of vast service to the profession. Our only regret is that that the parsimony of the State is such that only so little can be accomplished. New State health boards are being formed from year to year. We trust that the terrible epidemic still raging in the southern States may teach the lesson that a State board of health is an economical and wise provision against the evil day. Dirt and filth alone furnish the soil in which the yellow fever germs could ripen into such a horrible harvest. The people and the profession need boards of health. Their number need only be limited by the ability to receive the proper number of competent, honest members.

The advances made in the science and art of medicine and surgery during the past year have been mainly in detail.

Old discoveries and inventions and methods have been extended, corrected and modified, so as to become more effective.

In general surgery the antiseptic method in the treatment of wounds and operations has gained in influence, and bids fair to become universal among all careful operators. Other antiseptics than carbolic acid have not on the whole given better results.

The plaster of Paris dressing in treating Pott's disease of the spine has created a great furor in both this country and in England. Undoubtedly it surpasses all other appliances in cheapness and efficacy in a large class of cases.

It is too much to expect that there will be no more hunchbacks, but the muscular surgeon of New York has done his best to bring about such an era.

Battey's operation for the removal of the ovaries has also steadily gained in favor, and the indications are that it will finally be established as meeting the indications in a small class of cases.

Time fails me to even allude to the minor changes wrought in special surgery. In general it may be said that they are nearly all in small details.

In practical medicine we find the germ theory of disease spreading in spite of the best efforts of its opponents. Still, it has in some quarters received hard blows, and it is questionable whether it has not reached the height of its influence. Its prevalence has given new zest to the study of all agents destructive of parasitic life.

Inflammation still remains to vex us all. During the past year Stricker and Cohnheim have each written a work on the pathology of inflammation. The former claims to have proved that pus cells originate from proliferation of the corneal nuclei and the granular network in which they seem to be imbedded. On the other hand, Cohnheim maintains that pus cells only originate from emigrated white blood corpuscles. Each writer has blended his views with a vast net-work of pathological facts and reasoning. As both views cannot be correct, a mess is in store for students to separate the true from the false.

The localization of cerebral diseases has notably been advanced since our last annual meeting. Vast numbers of accurate observations have on the whole confirmed the conclusions reached by the experimenters on the lower animals. Of these, Charcot and his fellow-workers have probably furnished the greatest number of reliable observations. Some observations, on the other hand, have been recorded apparently adverse to the doctrine of cerebral localization.

Therapeutics has advanced on the only rational basis, viz.: physiological action supplemented by clinical study. The action of a very considerable number of new drugs has been definitely made known. Old drugs have been re-investigated by the aid of recent methods, and a new light shed upon their action. The problems here presented for solution are of the most intricate and difficult nature, and we need not be surprised that progress is slow.

Physiologists have contributed very much of interest to their fellow-workers and the profession at large. Their new journal, well supported as it is, speaks much for the interest taken in this branch. Among the new discoveries of practical note is Schmidt's discovery of the ferment that causes the hæmoglobin to unite with the paraglobin and form fibrine. By a curious method of experimentation he has shown that this ferment comes from the breaking down of white blood corpuscles. Kuhne has still further developed Boll's discovery of retinal red.

Owing to numerous well directed efforts, the metric system has rapidly come into notice, and bids fair to speedily be *the* system employed by all progressive men in the profession.

In common with other classes of men, death has invaded our ranks. Concerning the scores who have fallen martyrs to the pestilence, we can, here and now, only tender our gratitude that they did their duty calmly and faithfully, even until the end. Heroes they were, proving beyond cavil that the great mass of the profession pursue their calling for other rewards than simple money. On a grand and awful scale they have exhibited the self-sacrifice for the good of humanity, which is, and ever has been, characteristic of our profession. Like one of old, they have shown how we are all things to all men, that we save some from the fell destroyer, and restore them to a healthy, happy life.

Besides these heroes hundreds of others, just as faithful, just as heroic, just as self-sacrificing, have in every part of the world, unknown and unsung, gone to their long home. Others still, the leaders and teachers of the profession, have joined the throng of the departed. Their names and deeds and memories remain with us, to incite to higher aims and a truer life. Of these I may mention the following:

Dr. Martin Paine, æt. 81. Writer, teacher; largely aided in legalizing dissecting in New York.

Dr. Paul F. Eve; æt. 71, Nashville. Surgeon; teacher.

Dr. E. R. Peaslee; writer, teacher, gynecologist.

Dr. L. P. Yandell, Sr.; æt. 73. Writer, teacher.

Dr. Francis Gurney Smith, Philadelphia. Teacher, writer.

Dr. Washington Atlee; ovariotomist, writer, debater.

Dr. Edward Clarke, Boston. Writer, teacher, practitioner.

Abroad we have:

Dr. Wm. Stokes, great Irish physician, æt. 74.

Dr. J. R. Mayer, propounder of the mechanical theory of heat.

Dr. Rokitansky, of Vienna, father of that school; pathologist.

Dr. Wunderlich, Leipsic. Author of Medical Thermometry.

Dr. Bartels, author of valuable articles in Ziemssen's Cyclopædia.

Thus we have passed in review a few of the most striking events moving in the professional world during the year now closing. On the whole, we may say that in all respects we have made progress—both our little society and the profession at large. From this retrospect let us gather hope for the future, and determine that in the coming year we *each* one will be more earnest and more watchful to perform our duties in the academy and in all other professional relations.

Reports of Societies.

Detroit Academy of Medicine.

ANNUAL MEETING.

OCTOBER 22, 1878.

Dr. J. F. Noyes read a sketch of the life of our late active member, Dr. J. M. Bigelow.

MR. PRESIDENT AND GENTLEMEN—Within the year which now ends with this anniversary meeting, an aged and honored colleague has been removed by death from among us—one who always took a deep interest in the growth and welfare of this society. Dr. Bigelow was one of our charter members, and attended our meetings as often and as long as he was able.

For the information and the accounts of his professional life, contained in the following brief sketch, I am indebted largely to the *Scholastic*, a college journal, published at Notre Dame, which contains a beautifully written and just tribute to his memory:

The late Dr. John M. Bigelow was born at Middlebury, Vermont, June 23, 1804. His father, it seems, removed, while his boy was yet young, to Granville, Licking county, Ohio. The trials and hardships incident to settlement in a new country, the labor required at all hands for subsistence, debarred him from the advantages of the early schooling which he might have obtained in New England, had he grown up there. He attended school, it appears, only six months after this; but the inherent love of knowledge in the young rustic no hardships or the adverse circumstances with which he had to contend could repress; he employed his leisure time and the long winter evenings, poring over his books with all the ardor of a born student. In this way he qualified himself, and was soon able to teach in the district school, and earn the money which he was to use to pay for his medical education at Cincinnati, where he graduated. Immediately after his graduation he settled in Lancaster, Ohio, where he rose to eminence in his profession. It was while in practice there that he took up and prosecuted the study of botany, for which his long rides in the open country around Lancaster in those days gave him ample opportunity, and in which he finally became an able authority. In 1847 he published a catalogue of the plants growing in Fairfield county, Ohio. The knowledge thus acquired gained for him subsequently the appointment of physician and botanist to the expedition when the Mexican Boundary Commission was sent out, and his collection of plants made at this time was very large. Later, Dr. Bigelow was appointed botanist to the expedition under Major Whipple, who was given charge of one of the Pacific railway surveys, and again he made large collections of plants; his report being published in Vol. IV of the *Pacific Railway Reports.* On completion of this service, he resumed the practice of medicine at his old home, Lancaster, until 1860, when he was appointed to take charge of the meteorological department of the survey of the north and northwest lakes, at which date he removed to this city. He was thus employed when I came here to reside in 1863. It was his knowledge of botany that was the medium of my forming thus early his very pleasant acquaintance, having soon had occasion to consult him in regard to the botanical name and properties of a weed (*Euphorbia maculata*) much used here at that time by a certain physician for the cure of dysentery. He always impressed me by his singular modesty, never permitting his attainments to obtrude themselves in a pretentious way, while his uprightness and meekness of manner gave to him that attractiveness which arrested the attention of those who were at all acquainted with him.

After six years' service connected with the Lake Survey, he received next the appointment under President Johnson of physician to the Marine Hospital in this city, which place, owing to political changes, he held for only one year. Later, when the Detroit Medical College was organized in 1868, he was appointed professor of botany, and became one of the corps of teachers. On going into the manufacture of svapnia he retired some years since from practice, and moved to a farm outside of the city, where he continued to reside until his death, July 18, 1878.

During his painful and protracted illness, which was produced by a spontaneous fracture of the thigh, it was my fortune, as it was my pleasure, to render to him some offices of kindness. He bore his sufferings with remarkable composure and resignation, and always appeared so thankful for the least thing done for him by a friend. When I finally told him, in answer to a question, that he would not recover, or continue long, he remarked with calmness, that "if such was God's will, he was resigned to it." He had, he said, neglected nothing his church could do for him, and was ready and willing to go. *Requiescat in pace.*"

The report of the committee appointed to draft resolutions in respect to Dr. Bigelow, was read by Dr. Gilbert, and unanimously adopted.

Dr. Gilbert:

WHEREAS, By death, after a prolonged and patiently endured illness, our esteemed friend, brother, and former academic associate, Dr. Bigelow, has been taken from us;

Resolved, That with unfeigned sorrow and regret for this untimely loss, we sustain our bereavement with kind remembrances of his past services and devotion to the duties of a profession he lived long to honor and obey.

Resolved, That for his many estimable qualities as citizen, Christian gentleman and physician, we hold him in high estimation. The modesty that graced his every act, the tender and delicate feeling that smoothed and made delightful his intercourse with his professional brethren, shall ever endear him in our memory.

Resolved, That a copy of the foregoing resolutions be sent to his widowed wife and family, as a token of our sympathy for their loss.

Drs. Carstens, Spalding and Yemans were appointed as a committee to prepare and immediately report resolutions on the death of our late corresponding member, Dr. J. H. Beech, of Coldwater.

Dr. Carstens:

WHEREAS, We have heard with deep regret of the decease of our late corresponding member, Dr. J. H. Beech, of Coldwater;

Resolved, That in his death this academy has lost a most able and enthusiastic member; one who was ever willing to practice the healing art, whether on the battle-field or at the bedside; one who always kept abreast of the latest advances in science, and on all occasions displayed his sound judgment and great skill. His loss is not ours alone, but that of the whole profession.

Resolved, That copies of these resolutions be presented to the bereaved family and the medical and daily press.

The President read his annual address, which was listened to with marked attention and interest. In it he carefully reviewed the progress of medicine during the last twelve months.

ELECTION OF OFFICERS.

The following gentlemen were chosen:

President—Dr. A. B. Lyons.

Vice-President—Dr. H. O. Walker.

Secretary—Dr. E. A. Chapoton.

Treasurer—Dr. J. Bradley.

On motion, the meeting adjourned.

E. A. CHAPOTON,
Secretary.

Detroit Medical and Library Association.

REGULAR MEETING, Oct., 21, 1878.

President Shurly in the chair. Fourteen members present.

Dr. Hawes exhibited fragments of bone removed by Dr. McGraw from the skull of Goerin who recently died from the effects of a blow on the head from a cigar mold. The fragments were removed four hours after injury. One of the smaller penetrated the dura mater, though there was no perceptible escape of cerebral substance. The man recovered consciousness after the removal, but sunk and died forty-eight hours afterward.

Post-mortem examination revealed softening of the hemisphere and inflammation of the membranes.

Dr. Heaton related a history of two cases. In the first a tamping bar was driven through the chin into the hemispheres. The man climbed a ladder and went to his boarding-house, where some force was required to extract the bar.

There was considerable loss of brain substance, but the man recovered with mental faculties unimpaired.

In the second case the man was injured while picking out a blast which had missed fire but exploded while he was thus engaged. There was a great triangular depression in parietal region, from which oozed about an ounce of brain substance. He elevated the fragments, the man remained in a comatose condition a week, but slowly recovered. He was drowned not long afterwards.

Dr. Heaton also reported the following case:

In January last was called to see a lady suffering from a painful affection of arm and shoulder, accompanied by great œdema of the hand and fore-arm nearly to the elbow, evidently caused by pressure on the nerves and vessels to that extremity. There was also a swelling just above the center of the clavicle which, he decided, was neither glandular nor aneurismal, but was unable to diagnose its exact nature. His opinion was confirmed by several other physicians who, also, declined to make a positive diagnosis. The arm was bandaged and lotions and friction used freely with a view to mitigate the symptoms. He succeeded in relieving the œdema, thus making the arm more useful, but paroxysms of pain continued frequent, as often as every half-hour or hour, and relief could only be obtained by the use of morphia, which he sometimes injected, subcutaneously, in grain doses, five or six times in the twenty-four hours. The growth above clavicle at length begun to enlarge, there was œdema of the lungs and lower extremities followed later by effusion into the pericardium and pleura and, at length, by death. *Post-mortem* examination showed a growth pressing upon the lungs and partially dislocating the end of the clavicle, springing from the fifth, sixth and seventh cervical vertebræ. Under the microscope it proved to be an enchondroma.

Dr. Hawes reported a case of compound comminuted fracture of both bones of fore-arm with bones protruding above and below, accompanied by fracture of the inferior maxilla at the angle, which occurred two weeks before. With antiseptic dressings there had been neither pus nor odor.

Dr. Heaton mentioned a case to which he was called a week ago, a lady suffering with membranous dysmenorrhea. She had passed her regular monthly epoch, but, a few days after, had expelled a perfect cast of uterus. When he saw her there was a rusty discharge, some cellulitis and tenderness of ovaries; bowels were regular and there was no vomiting; possessed of constitution of more than ordinary strength. It occurred to him that if she had died at this time some physician might have been unjustly suspected of having procured an abortion. He would, therefore, ask the opinion of members as to positive *post-mortem* indications of pregnancy.

Dr. Cleland mentioned the Hardie-Hollywood case, stating that he had been present at the *post-mortem* examination, and also requested an expression of opinion on this point. He asked if a corpus luteum one-half inch by an inch and a half was a positive indication of pregnancy and whether a ragged spot, such as would be caused by the detachment of the placenta, might be produced in membranous dysmenorrhea.

Dr. Jenks would not be willing to base testimony as to pregnancy on the appearance of the corpus luteum, though he knows of nothing which resembles the corpus luteum of pregnancy. He would always examine the placental site microscopically for placental tufts. He considered the tufts equal in importance to the corpus luteum and mentioned a case of tubal pregnancy in which the blood, with which the abdomen was distended, was carefully examined with a negative result, but the placental tufts were found at the site of rupture of the fallopian tube, and nowhere else. It was not known before death whether the woman was pregnant or not.

Dr. Cleland asked if the villi of the chorion could be detected during any month of pregnancy.

Dr. Jenks replied they could, and referred to an article by Dr. Dalton in the Transactions of the American Gynecological Society, Vol. II.

Dr. Yemans. Are not the placental tufts absorbed in a very short time, 48 hours at furthest?

Dr. Jenks. The process goes on rapidly, but not nearly so fast as that.

Dr. Cleland. If the whole decidual membrane were expelled in abortion, then could we find the villi?

Dr. Jenks. I think remnants might still be found, but further knowledge on this point is desirable.

Dr. Jenks exhibited some ancient works on midwifery, among them the first published in the English language on that subject.

Adjourned.

F. D. PORTER, M. D., *Secretary.*

Correspondence.

Triplets.

DEAR DOCTOR—I herewith transmit to you a report of a case that may be of some interest to you and the profession, on account of its rareness:

Mrs. H., age twenty-one years; weight one hundred and twenty-five pounds; native of Michigan, but of German descent; always enjoyed good health. First conception; has not had any of the stomach symptoms. On the 31st day of October last, when five months gone in gestation, she was taken with severe labor pains, after a hard day's work, and after about six hours of quite severe pains, she gave birth to three well-formed male fetuses. The afterbirth came away without any trouble; it was about half as large again as the usual size for that period. They were alive at birth, but died in a few minutes. The parents would not consent to my taking the fetuses home. Mother is doing well.

Very respectfully, W. B. SMITH.

Abstracts from Exchanges.

Prepared by JUDSON BRADLEY, M. D., ALBERT B. LYONS, M. D., N. W. WEBBER, M. D., E. A. CHAPOTON, M. D., J. D. MUNSON, M. D., H. PETERSHAUSEN, M. D.

Practice of Medicine.

CROUP AND DIPHTHERIA.—REPORT OF COMMITTEE OF ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—This committee was appointed in 1875, to examine into the relation existing between the diseases commonly known as membranous croup and diphtheria. Its report was made last October. From the *British Medical Journal*, October 26th, we take the following conclusions: (1) Membranous inflammation confined to or chiefly affecting the larynx and trachea may arise from a variety of causes, as (*a*) from the diphtheritic contagion; (*b*) by means of foul water or foul air or other agents such as are commonly concerned in the generation or transmission of zymotic disease; (*c*) as an accompaniment of measles, scarlatina or typhoid, being associated with these diseases, independently of any ascertainable exposure to the special diphtheritic infection. (*d*) It is stated on apparently conclusive evidence, although the committee have not had an opportunity in any instance of examining the membrane in question, that membranous inflammation of the larynx and trachea may be produced by various accidental causes of irritation: the inhalation of hot water or steam, the contact with acids, the presence of a foreign body in the larynx and a cut throat.

(2) There is evidence in cases which have fallen under the observation of members of the committee that membranous affection of the larynx and trachea has shortly followed exposure to cold; but their knowledge of the individual cases is not sufficient to exclude the possible intervention or co-existence of other causes. The majority of cases of croupal nature definitely traceable to cold appear to be of the nature of laryngeal catarrh. (3) Membranous croup, chiefly of the larynx and trachea to which the term "membranous croup" would commonly be applied, may be imparted by an influence epidemic or of other sort which, in other persons, has produced pharyngeal diphtheria. (4) Conversely, a person suffering with the membranous affection chiefly of the air passages, such as may commonly be termed membranous croup, may communicate to another a membranous condition limited to the pharynx and tonsils, which will be commonly regarded as diphtheritic.

Thus it appears that the membranous affection of the larynx may arise in connection with common inflammation, or with specific disorders of several kinds, the most common of which in this relation is that which produces similar change elsewhere and is recognized as diphtheria. In the larger number of cases of membranous affection of the larynx the cause is obscure.

Among those in which it is apparent, common irritation seldom presents itself as the source of the disease; accidental injury is but very infrequently productive of it. But few cases of undoubted origin from exposure to cold are on record. On the other hand, a very large number of cases of infective or zymotic influence is to be traced. The membrane, even when chiefly laryngeal, is more often than not associated with some extent of a similar change in the pharynx or in the tonsils, and whether we have regard to the construction of the membrane or to the constitutional state, as evinced by the presence of albumen in the urine, it is not practicable to show an absolute line of demarkation between the laryngeal and pharyngeal forms of the disease. The facts before the committee only warrant them in the view that, where it obviously occurs from a zymotic cause or distinct infection, and primarily affects the pharynx, constitutional depression is more marked and albuminuria more often and more largely present; though in both conditions some albumen in the urine is more frequently present than absent. The most marked division indicated by the facts before the committee is that between membranous and non-membranous laryngitis. The committee suggests that the term croup be henceforth used wholly as a clinical definition, implying laryngeal obstruction occurring with febrile symptoms in children. Thus, croup may be membranous or not, due to diphtheria or not so. The term diphtheria is the anatomical definition of a zymotic disease, which may or may not be attended with croup. The committee suggest that the term "membranous laryngitis" should be employed to avoid confusion whenever the knowledge of the case is such as to allow of its application.

INTESTINAL DEPLETION AND VENESECTION IN URÆMIA.—(*Lyon Medicale*, September 28th, 1878.)—M. de Cerenville had lately an opportunity of comparing the action of intestinal depletion and venesection in uræmia. Two cases, analogous in every respect, of scarlatinal nephritis in two young men of eighteen and nineteen years of age, were under his care at the same moment. In one case, drastic cathartics were employed; sixty grammes of compound tincture of jalap, given in two doses, brought about an abundant intestinal depletion, but notwithstanding this, death shortly afterwards took place. In the *post-mortem*, the kidneys were found much enlarged; a nephritis not very far advanced.

The other patient was bled twice, and each time two hundred grammes of blood were removed. The next day some amelioration was manifest and the case promptly recovered.

Elimination of Quinine in the Urine.—(*L'Union Medicale*, August 29th, 1878.)—M. Personne, in a communication to the Academy of Medicine, of Paris, gives the result of his researches in respect to the elimination of quinine in the urine:

1. One-half of the quinia taken into the body is destroyed.
2. This is proved by the following facts: (*a*) All of the quinine extracted from the urine and soluble in acids can be transformed into neutral quinia sulphate without any appreciable residue. (*b*) There is always obtained a resinous substance, insoluble in acids and in every way similar to that obtained in the extraction of cinchonia alkaloids.
3. Hence, the quinine eliminated in the urine has undergone no alteration nor isomeric modification.
4. At least half of the injected quinine is destroyed in the body.

Potassium Oxalate in the Treatment of Metritis.—(*Lyon Medicale*, August 18th, 1878.)—Dr. Gatti, during three years of general practice in northern Italy, has employed potassium oxalate in the treatment of metritis and peritonitis, and has obtained excellent results.

Lange also employed this remedy, and as its effects were so constantly beneficial, he always administered it in these diseases and obtained complete cures in all cases of inflammation of the uterus and its appendages, except those following the use of obstetrical instruments.

In a few exceptional cases, opium had to be given with several doses of the oxalate. Gaspari asserts that this salt has no effect upon puerperal fever. It is administered in a daily dose of gr. 0.80 in 125 gr. of some gummy emulsion. Sodium oxalate can be employed in its stead.

TREATMENT OF TETANUS.—(*Lyon Medicale*, Nos. 29, 32 and 33.)—Dr. Aribaud reports a number of cases of traumatic tetanus in which he employed a mixed treatment of chloral and opium. The fatal terminations being apparently delayed by giving the remedies in increased doses, the doctor finally arrived at a somewhat definite line of treatment by means of which he has saved three out of his last four cases.

From his experience, he states that a daily dose of six to seven grammes of chloral must be given continuously, until the patient is almost well, as in less quantities the remedy seems to have no serious effect upon the course of the disease.

The opium was administered under the form of laudanum, forty drops of which were given daily by means of rectal injections. He preferred the use of enemas, as he could thus confide the administration of the opium to the care of any assistant. Attention should of course be paid to the physiological effects of both remedies.

Action of Medicine.

STRYCHNIA—ITS ANATOMICAL AND PHYSIOLOGICAL EFFECTS UPON THE BRAIN, SPINAL CORD AND NERVES.—Dr. W. H. Klapp (*Journal of Nervous Diseases*, October, 1878) details at length some very elaborate experiments made upon the above topic. The care and skill exhibited lead us to the belief that his conclusions are approximately correct. They are: (1) Strychnia produces no appreciable primary lesion of nerve substance proper; that secondary lesions are produced—granular degeneration—by the engorgement of the vascular system, and that this is more marked in the brain and cord than in the nerves. (2) The convulsions of strychnia are not cerebral, and they are much more severe after the ablation of the cerebrum owing to the removal of Setschenow's ganglia. (3) Strychnia does not affect either the sensory or motor nerves at their periphery. (4) Both sensory and motor nerves in their course are unaffected by strychnia. (5) The tetanus-producing power of strychnia has its only action in the gray matter of the spinal cord. (6) In small doses the primary action of strychnia is to excite the vaso-motor center, causing thus a rise in the arterial pressure, and secondarily to paralyze this center, and hence to supplement this rise by a fall. (7) In large doses the vaso-motor center is immediately paralyzed. (8) The slowing of the pulse produced by the exhibition of strychnia to both warm and cold-blooded animals is in neither case produced by any action on the central or peripheral ends of the pneumogastrics; but in warm-blooded animals is due to action on the excito-motor ganglia of the heart, and in cold-blooded animals is due to action on the ganglia situated in the sinus venosus. (9) The main vaso-motor center for strychnia is situated in the medulla oblongata, but simpler centers exist in the spinal cord. (10) The pneumogastric nerves are *not* paralyzed by strychnia in either warm or cold-blooded animals. (11) Strychnia decreases the number of respiratory movements; at first from too little blood, and afterwards from too much blood flowing to the respiratory centers. (12) The decrease is not due to any action of the pneumogastrics. (13) Artificial respiration always moderates and sometimes stops the spasms; and this power is due to a maintenance of the oxygenation of the blood until the poison can be eliminated, and is not due to a reflex stimulation of the pneumogastrics.

Obstetrics.

BREECH PRESENTATIONS—CORRECT METHOD OF MANAGING THEM.—Dr. T. Gaillard Thomas (*Medical and Surgical Reporter*, November 9th, 1878) gives the following plan as the best in breech presentations: As soon as you have discovered that the breech is presenting in any particular instance, at once make every preparation for the delivery. Then wait quietly until the breech comes down into the vagina. Do not hurry the early stages of a breech case, and never put your finger (much less a blunt hook) around the child's groin. At this period the breech is aiding you very materially all the time by its action in dilating the parts. But the instant that you find it distending the perineum, you should change your tactics entirely. Having placed the patient on her back across the bed with her feet resting on two chairs, give one limb into the care of the nurse and the other into that of a competent physician whom you have previously summoned, and who should always keep one of his hands free, so that he may assist you as required. The chief principle in the delivery is this: that the force that is to expel the child must come from above and not from below. Therefore, now give a large dose of ergot hypodermically in order that it may produce a powerful effect instantaneously upon the uterus. As soon as the cord comes within reach get hold of it; and then ask the physician who is assisting you to press down upon the head with all his force. The patient, if she is a woman of any force of will, ought not to be under the influence of any anæsthetic, and you should call upon her to bear down as strongly as she possibly can. Where all these forces are called into play the result is usually a very speedy delivery. In a second or two you can get two fingers into the child's mouth and thus make traction by means of the inferior maxilla.

Ophthalmology.

Diseases of the Eye Depending upon Uterine Derangement.—Dr. H. R. Swanzy (*London Obstetrical Journal*, May, 1878) details many instances of organic diseases of the eye apparently dependent upon diseases of the uterine organs.

Thus he describes in this list a peculiar form of iritis, neuro-retinitis, apoplexies of the retina and optic nerve, atrophy of the optic nerve and an affection called kopiopia hysterica. The iritis is peculiar in that it occurs in young girls from the eleventh to the seventeenth year of age—from a year or two before menstruation up to two or three years afterwards. The iritis presents little or no pain, but little vascular injection of the eye or photophobia. The anterior chamber usually remains clear, and there is no deposit on the posterior surface of the cornea. There is a tendency to the formation of posterior synechiæ, and the stroma of the iris in bad cases becomes indistinct and discolored. The vitreous humor is very liable to become cloudy, showing that the ciliary body and choroid are implicated. The uterine derangement is not very marked.

But this form of iritis never is met with in the male at that age, and no other cause than the uterine disturbance could be assigned. The other cases were traced directly to more or less grave uterine lesions.

Horstman (*St. Louis Medical Journal*) reports twelve cases of metrorrhagia, in all of which impairment or loss of vision occurred fourteen days after the efficient cause. In loss of vision the optic nerve was found atrophied.

The complete absence of cerebral symptoms before and at the time of the hemorrhage deserves a word. Until Schwalbe demonstrated the existence of lymph spaces between the two sheaths of the optic nerve communicating with the subarachnoid spaces within the cranium, these cases were incomprehensible. It is now thought that owing to the sudden loss of blood that within the cranium is materially lessened, and for the time its place is supplied by the fluid from the various lymph spaces. On the blood-vessels becoming again fully supplied with blood, the lymph spaces are overdistended and also the sheath of the optic nerve. This leads to pressure upon the optic nerve itself, and in some instances to the occurrence of the choked disc.

HEMIOPIA FROM ORGANIC DISEASE OF THE CORTEX CEREBRI.—Dr. P. Baumgarten (quoted in *Journal Nervous Diseases*, October, 1878) describes a case of left lateral hemiopia coming on suddenly after exposure to cold. The left half of the field of vision of both eyes was completely gone, the line of separation passing through the fovea centralis, while the other part of the retina still retained normal perception. Death occurred in several months from cardiac paralysis in renal disease. *Post-mortem* examination revealed an apoplectic cyst the size of a walnut in the substance of the right occipital lobe. Its lower wall was separated from the cavity of the right posterior horn by a layer of normal medullary substance several millimeters in thickness, while its upper wall was formed by the convolutions of the three gyri-occipitals, which were in a state of yellow softening. Munk, in experiments on monkeys, produced paralysis of one half of each retina from a lesion of the same side, exactly corresponding to this case.

The Detroit Lancet.

EDITORS—H. A. CLELAND, M. D., LEARTUS CONNOR, M. D.

The Duty of our Local Board of Health.

We received a few days ago a document, issued by the State Board of Health, entitled the "Restriction and Prevention of Diphtheria," in which the nature, restrictive and preventive measures of the disease are succinctly and clearly laid down in a manner capable of being understood by all. Under the heading, "Restriction of Diphtheria," attention is again called to "The duties of householders, physicians and boards of health as specified in sections 1734, 1735, 1732 and 1695 of Compiled Laws of Michigan, 1871," with the recommendation that they "should be rigidly enforced." The recommendation, as far as this city is concerned, is needed, as, notwithstanding the well-meant efforts and recommendations of the State board, the duties as laid down in said sections are more honored in the breach than in the observance. The whole law, indeed, in this city is practically a dead letter as regards every disease dangerous to public health, except small-pox. In this disease some of the sections have been strictly enforced, and with such beneficial results to public safety as might well encourage a like effort in other infectious and contagious diseases. Scarlet fever and diphtheria are again becoming quite prevalent in the city, both manifesting themselves in a rather benign form. With the advent of more severe weather they will in all probability become more prevalent and assume a graver character. No effort has been made by our local board of health to secure a report of such cases, nor have any measures to our knowledge been taken to protect the public safety should they become epidemic. Already in our public schools children, coming from houses in which scarlet fever or diphtheria is present, have communicated the disease to their fellow pupils. To be sure, the board of education prevent this as far as in its power, by refusing to admit these children until a certificate of safety is brought from the attending physician. But as it is not compulsory on pupils or their parents to notify the teachers when such diseases exist in their houses, the children continue their attendance, disseminating the germs of disease unknown to the teachers. The remedy for this condition of things is to be found in the strict enforcement of the specified sections of the law by our local board of health, and we can assure the board that whatever steps it may take toward this good end will be heartily seconded by the profession of the city, and ultimately appreciated by the community. H. A. C.

Opodipsia.

For many years, with us, as with other physicians, the progressive development among our people of the vice of opium-eating has been a matter of personal observation. In this city, within the last few years, the number of habitual users of this drug has increased to an alarming extent. Our information, as based more particularly upon the reports furnished us by a number of the leading druggists, would show that within the last five years their sales over the counter to regular consumers have increased fifty per cent at least. These opium habitués are from every social grade, but the greater number seem to belong to the middle and lower classes. Female purchasers seem to predominate. The form in which the narcotic is mostly bought is morphia and laudanum; there is comparatively little of the gum opium sold. These buyers do not purchase from the same store for any length of time, but as soon as they become known, carry their patronage somewhere else. No satisfactory estimate could be obtained as to the amount of opium and its preparations retailed by the druggists of the city; but the figures furnished by a few of the leading ones are quite startling.

There is little doubt but the penury and carking care incident to these "hard times" have been important factors in the development of this vice. The wonderful temporary restorative and life-sustaining virtues of the drug becoming known to the sufferers—whether they suffer mentally or physically—they resort to it as a solace and comfort in their day of trouble. Under its stimulus the cravings of hunger are allayed, and the cares and tribulations of life by its magical glamor become bearable. Nathless, it has been shown again and again that its victims become subject to those diseases of the nervous system which make them inmates of insane asylums; that from the sense of moral degradation, induced by its practice, our prisons and reformatories are filled; that "degeneracy commonly marks the offspring of the opium-eater; an organic cerebral decay, impaired intellect, and constitutional cachexia, are predetermined," and a race of idiots is perpetuated. For these and other reasons equally pertinent, the opium traffic should be watched among us more closely than it has been. Its progress for the last few years has been rapid and insidious; its issues are dreadful to contemplate. Little has ever been accomplished by legislation in controlling it, but it is no less essential the whole extent of the evil should be studied, that, knowing its stronghold, a vulnerable point peradventure may be found at which it can be successfully assailed.

H. A. C.

Memoranda.

At its commencement, Nov. 5, 1878, the Pacific Medical College graduated a class of twenty-six.

" Henceforth it will be hard to find a doctor with whom the most fastidious regular practitioner may not consult."—*Dr. Lyman, in Chicago Medical Journal.*

The local press of Vienna, in speaking of the death of the celebrated anatomist, Rokitansky, mentions among the other details of his life, that he dissected no less than thirty thousand cadavers.

Some careful experiments relating to the thermal death point of septic organisms have been reported to the London Royal Society by Rev. W. N. Dallinger. From these it was shown that 250° F. was the limit of heat that such organisms could endure. Boiling water, therefore, would not destroy these germs.

A cold bath refreshes the system by stimulating the functions. A hot bath by facilitating them.—*Baun.*

" Habitual drunkenness is not a disease, though it causes all manner of diseases, but in itself is a vice, and ought to be treated as a vice. The habitual drunkard is a man who likes to drink whenever he can, and who can drink whenever he likes."—*Bucknill.*

The *Boston Medical Journal* says " that New York, with clinical opportunities second to no city in the world, with teachers of a world-wide reputation, must be content to see her schools looked upon with contempt until she has placed them upon a footing which modern civilization demands."

The English chemists, T. & H. Smith, announce the discovery of a new opium alkaloid, which they call gnoscopine. This substance forms readily crystallizable salts, which have an acid reaction. The substance is insoluble in water, or at least in only 1500 parts. When pure it is in the form of long, thin, white needles, having, when dry, a woolly character.

The total tax of the United States upon alcohol and tobacco is over one hundred millions. In India three hundred thousand acres of land are devoted to opium raising. Enough Indian hemp is raised to narcotize three hundred millions of the human race. Five hundred million pounds of the betel nut are raised every year. To the cultivation of cocoa thirty-seven thousand acres of land are devoted. The annual value of the hop crop is estimated at over forty millions of dollars. The value of the tea imported into this country during 1877 was $16,481,467, and of coffee $53,634,991.

We observe that the Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain, has been examining "Trommer's Extract of Malt," manufactured at Fremont, Ohio. He says that "it retains the property of acting on amylaceous bodies as diastase does, while the extract itself bears long keeping without change. With cod liver oil it forms a permanent emulsion, in which the taste is very effectually covered. Clinical experience confirms the above, and has demonstrated that this malt extract fills a definite place in our therapeutics.

French Medical Statistics.—(*Lyon Médicale*, Aug. 18, 1878.)—In 1866, there were in France 11,254 doctors of medicine, and 5,568 officers of health, or a total of 16,882 physicians. In 1876, there were only 10,743 doctors of medicine, and 3,633 health officers, or a total of 14,376 physicians—a diminution in ten years of 2,446. Only one doctor is found in each one of 3,484 parishes, and in 2,111 there are only health officers. Finally, in 28,697 parishes, there are neither doctors nor health officers.

Dr. Piffard offers as a convenient substitute for Fehling's solution, the following: Take of sulphate of copper (C. P.), one part; crystallized tartrate of soda and potassa, five parts; sodic hydrate (C. P.), two parts. Mix well in a mortar. The resulting pasty mass can be kept in a wide-mouthed bottle, until wanted. To use, a piece the size of a pill is dissolved in a couple of drachms of water in a test tube. A few drops of the suspected liquid are now added, when, if sugar be present, the usual reaction will be manifest. Dr. Lyons recommends the following modification of the copper test for sugar in the urine: Put into a test tube in succession, four drops of a solution of pure copper sulphate, 1:10; four drops of a solution of tartaric acid, 1:4; about half a fluid drachm of solution of potassium hydrate, 1:8; boil, and proceed as with Fehling's solution. Made of the strength directed, the solution of tartaric acid is found to keep perfectly well; some glycerine may be added, or a minute quantity of salicylic acid to insure its keeping; or the tartaric acid (about one grain) may be added in the dry state; but the method as described gives perfectly satisfactory results.

In a recent address, Professor Lankester, of London, Eng., says, "It is a disgrace to English civilization that a true university, an endowed university, a university in which new knowledge is continually being produced, and in which men are trained for this work of production, as the work of their lives, does not exist in London and in each of our large cities." Schools must be endowed.

Our State inspector of illuminating oils informs us that during the past year no death has occurred in Michigan from the use of kerosene oil, and no injury where the law has been complied with. In striking contrast to this, the *Plumber and Sanitary Engineer* states that in New York city alone it has within three months collected from the papers the names and residences of ten women burned to death, eight men and women badly injured, and a large number of fires caused whose damages were assessed at from $40,000 down.

We learn that Dr. Wm. A. Hammond, of New York, has begun a suit for libel against Dr. John P. Gray, of the Utica Insane Asylum. The disputed statements were published in the *American Journal of Insanity*. A professor of insanity, etc., in the medical department of the University of New York sues a professor of insanity, etc., in Bellevue Hospital Medical College. Perhaps this suit will develop a better case than Dr. Hammond's suit against the New York *Medical Record*. Libel suits brought by one member of the profession against another are sufficiently rare to possess a general interest.

In New York city there are on the average eleven persons to each house—a degree of overcrowding nowhere in the world equaled. At least half a million people live in tenement houses —very many of these live in rooms never lighted by the sun in winter, or sleep in rooms never aired except from the dwelling-room. The fearful evils arising from a tenament house life are: (1) Squalor, discomfort, intemperance, herding like cattle, filth. (2) Chronic disease, sweeping epidemics, and decimation by death, the little children being the victims. (3) Family disruption, growth of immorality and vicious habits. (4) The creation and fostering of crime. *The Plumber*, from which we have condensed the above, has a graphic illustration of one of these tenements. The immeasurable misery and degradation here depicted should arouse every man to the effort of blotting out these tenement houses. The fact that three-fourths of the diseases of the city take their origin in these dens should arouse the more fortunate to blot them out of existence. When once diphtheria, etc., has gained headway it does not spare more comfortable or happy homes. In self-defense alone the better classes should wipe out the tenement houses. A successful effort to this end has been made in Brooklyn, N. Y., and bids fair to revolutionize the homes of the poor in that city. The effort is successful, in that good, healthy, cheap houses are provided so that the capitalist receives a net of seven per cent on his investment. Let New York go and do likewise.

Dr. Frank H. Hamilton is well known as a surgeon and educator. In an address before the American Academy of Medicine, September 17th, 1878, he discusses the general subject as related to the medical profession. In no address do we remember seeing so calm and truthful a statement of the facts in the matter. Why is it that medical colleges graduate a great number of men totally unqualified? He grants that the faculties are composed of the best men in the profession, and that they are more sincerely desirous of raising the standard of medical education than members of the profession at large. He answers the inquiry thus: (1) The present system of education in this country was imposed upon us while we were still in a colonial state. (2) The general government of our States refuses to assume the charge of education for reasons which lie at the foundation of our political system. (3) The States have almost uniformly neglected to endow medical colleges or to establish a proper standard for medical education. Even if they were to make such endowments, it is questionable whether they would not establish conditions harmful to both colleges and profession. (4) The result is that medical education is left with the profession to organize and administer its own system. As a result, almost all medical colleges are private enterprises. Without this enterprise we would have no medical colleges. A few of the medical colleges have attempted a forward movement, but their slow and unequal steps show conclusively that while the head and heart are willing, and are urging them in the right direction, the feet are dragging heavy fetters. Not one has ventured a step beyond what was considered safe in a pecuniary point of view. Of the University of Pennsylvania, we must not imagine that she has been actuated by a higher sense of duty, or a better code of morals than has hitherto actuated her own board, or than continues to control the conduct of her sister colleges. This college actually fell back from her original standard twice. First, in 1811, when she abolished her preliminary requirements, and second, in 1852, when she "sorrowfully abandoned," after six years of steadily diminishing classes, her slightly lengthened course of studies. Within the last year, having received a permanent endowment for one of her professorships, and a temporary guarantee for the remainder, she has ventured once more upon important reforms. Not to speak of other omissions, she has omitted preliminary examinations. "It was not feasible," says Dr. Pepper; "probably not feasible, because it would diminish the number of students, and so finally force the college to again retrace its steps. There is no very great difference in matters of duty or conscience among medical men at home or abroad, in office or out of office, in professorships or out of professorships. They are all about equally desirous of improving the standard of medical education, but not many in either rank will hold the standard very high or very long without something in their stomachs. * * * A later and more careful study of the whole matter has forced upon me the conviction that in endowments alone can be found a remedy for the emergency, and these endowments must be unconditional, carrying no such restraints as are almost certain to accompany State benefactions." He thinks that all can and should aid in molding public sentiment that it will endow the colleges and demand of medical graduates a higher standard of general education. In just this connection the American Academy of Medicine is doing an excellent work. This academy is composed solely of physicians who possess the degree of A. B. or A. M. We have placed thus prominent the salient features of this address because of its intrinsic worth and important relations to the entire profession.

Book Notices.

Any book noticed herein may be had of E. B. Smith & Co., Publishers and Booksellers, Detroit, Mich.

THE PRINCIPLES AND PRACTICE OF SURGERY. By Dr. Hayes Agnew, M. D., LL. D., Prof. Surgery, Medical Department University Pennsylvania. In two volumes; vol. 1, cloth; pages, 1062. Philadelphia: J. B. Lippincott & Co. 1878.

Another American general surgery! Such was our exclamation as this volume was laid upon our table. It did seem to us that with Gross, Ashurst and Hamilton—to say nothing of the large number of works on special parts of surgery—America had her share of works on surgery. As we write we recall to mind works on urinary surgery by Van Buren and Keyes, by Otis, Bumstead, by Durkee, and by Gross and Gourley; works on orthopedic surgery, by Taylor, Knight and Sayre; works on the surgery of the ear, by Rosa, Turnbull and Burnett; works on the eye, by Knapp and Williams; works on the skin, by Piffard and Duhring; works on diseases of women, by Thomas Byford, Chapman, Sims, Peaslee, Atlee, Goodell. Then, besides, we had a large number of smaller works, as those of Hewson, Norris, Mitchell, Tolanes, Smith, McDowell, Warren, etc. Then we had Erichsen, Bryant, Holmes—popular works among students and practitioners. With this extended mass of surgical material, it seemed that we must be abundantly supplied; but as we examine with more and more minuteness the ponderous volume before us, the conviction is established that we were mistaken. In his preface, the author tells us that his "aim has been to furnish a safe and reliable guide for the surgical practitioner." By this aim we are bound to judge this volume. Has the author succeeded? If a clear, detailed statement of the principles and practice which have enabled him to excel as a surgeon constitutes success, then the work is a splendid one. If to this we add, side by side with the author's views, the statement of those of other celebrated surgeons, we must say that the result is largely enhanced in practical value. The personal work of more than a quarter of a century is intwined with that of the best surgeons of the world. The reader can see, compare and choose which he prefers to follow. The subject matter of this volume embraces the following topics : Surgical diagnosis, inflammation, wounds, injuries of the head, injuries of the chest and abdomen, wounds of the extremities, diseases of the abdomen, diseases and injuries of the blood-vessels, ligation of the arteries, surgical dressings, injuries and diseases of the osseous system. The whole is illustrated by about nine hundred wood cuts—many from other works, but many also entirely new.

The chapter on surgical diagnosis furnishes a capital introduction to the general subject. With a master hand the salient points are indicated, leaving the individual practitioner to fill in the details. One hundred and twenty-five pages are devoted to a consideration of inflammation—a subject of transcendent importance to both the physician and surgeon. Very concisely and yet fully all the essential features of even the latest views are here sketched. The chapters on wounds are simply exhaustive, embodying even the real facts and principles brought to light by the war of the rebellion. The delineation of the surgery of the blood vessels adequately represents our present knowledge.

Necessarily, the chapter on diseases of the bones is largely devoted to the consideration of the various fractures. Everywhere we observe the imprint of a close thinker and practical worker. To an exceptional degree the non-essentials are trimmed away. As the latest and freshest statement of acknowledged surgical truths, this work will undoubtedly take the place that others have held. This is the law of such books, and the more rapid our progress the sooner do the old books become obsolete. Respecting the antiseptic treatment of wounds, our author thinks that the surgeon has not done the best possible for his patient if he has failed to employ this treatment. By this plan the suppuration is greatly lessened, the union hastened, the risk of constitutional infection diminished, and the surroundings of the patient rendered less prejudicial to health. In carrying out the method, the most scrupulous attention should be given to details. The carbolic acid should be of the purest crystallized quality. The strength in which it should be used is one part of the acid to thirty or forty of water. It is employed as a bath for instruments and sponges; as a spray to impregnate the air about a wound and to moisten the wound itself; and as one of the components of a mixture—consisting of carbolic acid one part, resin five parts and paraffine seven parts—with which to charge a material like gauze or fine crinoline. Besides a steam atomizer, oiled silk and Mackintosh cloth is required. Full directions are given for the use of these several materials. In conclusion, we have only to repeat our conviction that those practitioners who may look to this volume for aid will find it a safe and reliable guide in so far as any book can serve them as a guide. The excellent type, good paper and careful presswork reduces the task of reading to a minimum.

DISEASES OF THE BLADDER AND URETHRA IN WOMEN. By Alex. J. C. Skene, M. D. Cloth; pages 374. New York: Wm. Wood & Co. 1878.

This volume consists of a series of lectures, originally designed for the college class-room. As such they embodied only such things as the student and general practitioner require to know on the subject in order to meet the demands of every-day practice. Afterwards it occurred to the author that as there was no work covering this ground, the lectures would prove of service to medical men. These lectures are exactly what the author claims for them—a convenient, plain, uncomplicated statement of the principal diseases of the female urethra and bladder.

It is not to be expected that such a volume should contain much that is absolutely new. The volume opens with a brief account of the anatomy and physiology of the parts to be studied, and the malformations resulting from defective development. Attention is directed to a fact frequently forgotten. viz.: that the form of the bladder varies with age. In childhood the vertical is the longest diameter; in middle life the transverse; and in old age, from dropping of the inferior fundus and gradual atrophy of the pelvic organs, the vertical again becomes the longest diameter. Very important is it to remember that the exact pressure in the bladder is subject to a variety of changes. On standing the pressure was from thirty to forty centimeters; while in the recumbent posture it was only from ten to fifteen centimeters. The pressure is the same at all ages. It rises from one to two centimeters with each inspiration, and falls about the same with each expiration. In laughing and coughing it rises as high as fifty to one hundred and fifty centimeters. These facts give a scientific basis for the posture required of patients affected with various diseases of the bladder.

Under the head of functional diseases of the bladder are grouped many interesting disorders. In organic disease of the bladder we have pretty much the same list as we find in the male subject. Prominent among these are the various forms of cystitis. Graphically the author indicates the various causes of this state: direct injuries from blows, falls, fractures of pelvic bones, violent copulation, sudden uterine displacements, contusions and injuries during labor, foreign bodies, rough catheterization, overdistension from retention of urine, abnormal urine, inflammation of adjacent organs, constitutional diseases, drugs, improper food, and the virus of gonorrhea. The symptoms, diagnosis and treatment of these variously produced forms of cystitis are given with all the fullness needed, and with excellent good sense.

We have not space to note the discussion of the various neoplasms found in the bladder and urethra. Of course the diseases of the female urethra are as compared with the same diseases in the male subject relatively insignificant. Still, they are worthy of the most careful attention from all who pretend to care for the disorders of women. The volume is issued in Wood's best manner in every respect.

THE CELL DOCTRINE—ITS HISTORY AND PRESENT STATE. By Dr. James Tyson, M. D. Second edition, revised, corrected and enlarged. Cloth; pages 200. Philadelphia: Lindsay & Blakiston. Price $2.00. 1878.

Here we have presented the results of all the various workers upon the subject from Aristotle to Klein. Concise, clear statements of the views of each one are made in chronological order. The careful reader can see the various stages in the growth and development of this doctrine during these twenty-five centuries. Now, as ever, it is fundamental in all questions of minute pathology or physiology, and hence the value of the work before us, in collating from a thousand sources all the facts and so arranging them as to enable us to take a bird's-eye view of the entire subject in a few moments, and with little expense. It is not necessary that we should illustrate the characteristics of this volume, especially as this is a second edition. We cannot forbear quoting his definition of a cell as now understood: "The cell, or elementary part, is best defined as the smallest mass of living matter possessing the essential life properties of reproduction, nutrition, growth and development." An exhaustive bibliography largely adds to the value of the volume.

NOTES ON THE TREATMENT OF SKIN DISEASES. By Robert Liveing, A. M., M. D. Fourth edition, revised and enlarged. Cloth; pages 128. New York: Wm. Wood & Co. 1878.

This little work is just what it claims to be. Briefly, yet clearly, the most important features are exhibited. If a student desires any book of this size on this subject, we know of none better. Its popularity is sufficiently attested by the fact that this is the fourth edition.

PRACTICAL SURGERY — INCLUDING DRESSINGS, BANDAGING, LIGATIONS AND AMPUTATIONS. By J. Enoing Mears, M. D. Cloth; pages 270. Philadelphia: Lindsay & Blakiston. 1878.

There is little that need be said concerning this work. It is well prepared and contains as much as can be condensed within so many small pages. But then the same matter is just as well stated in the larger and more complete text-books. This, without one of those, would be entirely incomplete, and with one it would be superfluous,

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